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THE *Blue Jay*

VOL. XVIII, NO. 4

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DECEMBER, 1960

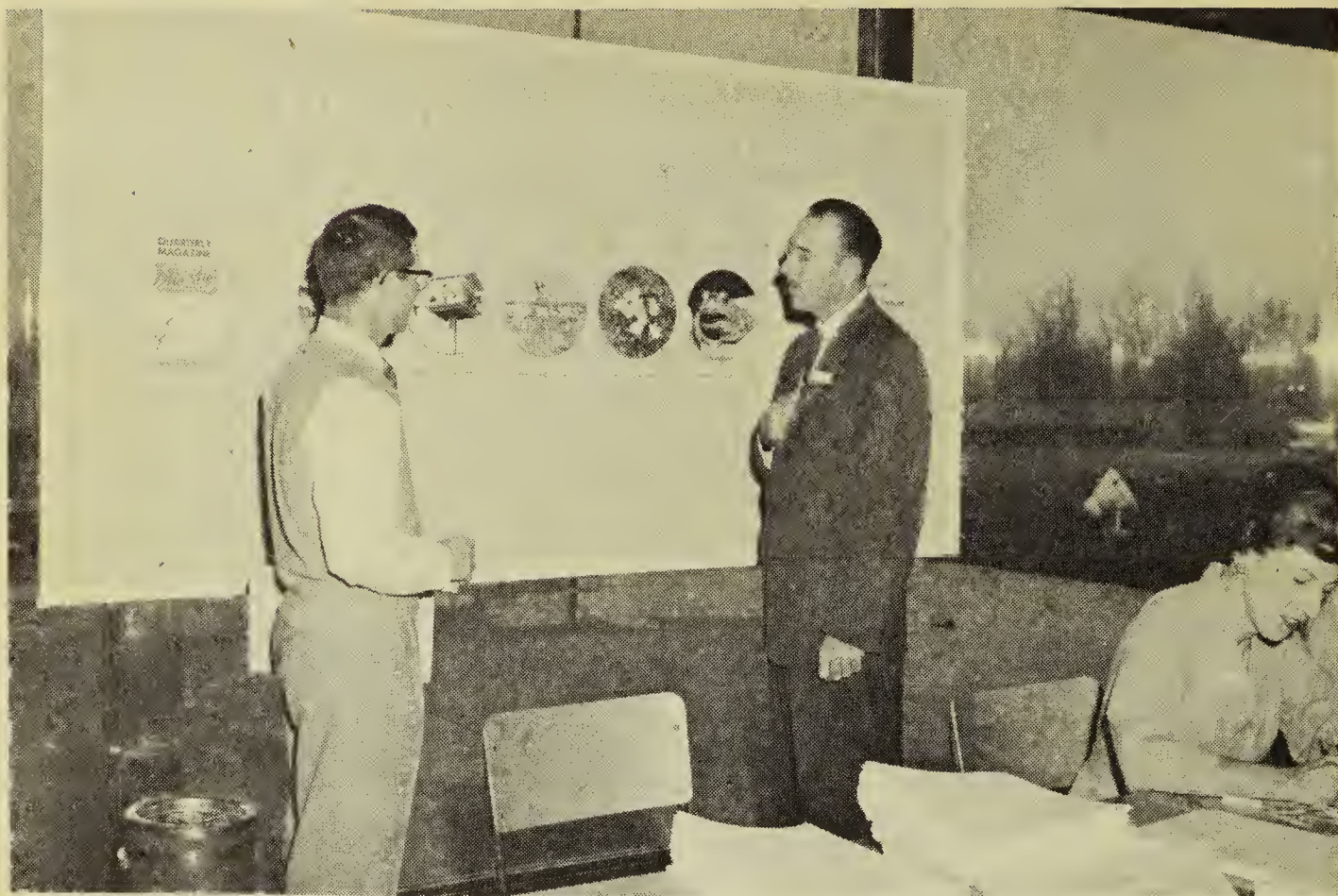


Sandhills at Last Mountain Lake

Photo by F. W. Lahrman

Published quarterly by
THE SASKATCHEWAN NATURAL HISTORY SOCIETY
Regina, Sask.

BLUE JAY CHATTER



Sask. Gov't. Photo

It is always pleasant to have an annual meeting in our provincial museum of natural history. This year we feel that the Museum staff outdid themselves in arranging imaginative displays for the meeting and in publicizing the Society previous to and during the weekend conference. The above photograph shows the eye-catching panel that was set up behind the registration desk to tell members, and especially prospective members, what they get out of membership in the Saskatchewan Natural History Society. This panel has since been moved to the lower gallery to become part of the "**Blue Jay**" exhibit that remains on display throughout the year. All of this makes our Society feel very much a part of the Saskatchewan Museum of Natural History.

From the first hot cup of coffee served to members returning from the pre-conference bird hike Saturday morning to the last chats with Fred Bard and his staff before saying goodbye Saturday night, our members were graciously made to feel at home in the Museum. Even the annual banquet was served in the building!

In tendering special thanks to the Museum staff for their warm hospitality on the occasion of the Annual Meeting, we are not unmindful of the contribution these same busy people make throughout the year to the activities of the SNHS. Since the Museum is the focal point for natural history activities throughout the province, a great many interesting observations are submitted to it in addition to those that result from its own field studies. Many of these observations are reported in the **Blue Jay**. The **Blue Jay** is greatly indebted to the members of the Museum staff who contribute articles, sketches and photographs to each issue of the magazine. The Museum in turn, is indebted to the **Blue Jay** for bringing these significant natural history observations to the attention of some 3,000 readers, since at present the Museum has no bulletin of its own. The co-operation between the provincial natural history society and the provincial museum of natural history is thus (as it should be) mutually beneficial. With Dr. Bob Nero of the Museum staff re-elected as president of our Society, and with our **Blue Jay Bookshop** established in the Museum, we look forward to a year of close contact between the Museum and the Society.

The Blue Jay

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The Cranes of Last Mountain Lake

by **Stuart Keith**, American Museum of Natural History, New York



Photo by F. W. Lahrman

As the sun set over the prairies, a great silence seemed to descend. The stillness was broken only by the dry calls of the Savannah Sparrows which scuttled in and out of the bushes at the edge of the field. From the low rise on which we were standing the broad sweep of the prairies stretched out in every direction. Behind us were the shallow, marshy waters of the northern end of Last Mountain Lake. In front of us the sun was setting in a blaze of red and purple.

A whistle of wings cut through the quiet air. A late party of ducks had left the lake and was heading for the stubbles. They went over, and the stillness returned. Even the sparrows now were quiet. We waited tensely.

Gradually we became aware of a low murmur which seemed to come from the fields some distance in front of us. The murmur grew louder, and soon it became a wild clamor as thousands of excited voices joined in the chorus. Still we waited.

"Here they come," said my wife excitedly. Outlined against the pink sky, a dark line of birds was flapping towards us. The line was followed by another and another, until the

whole sky was full of them, and the air was filled with their cries. This was what we had come across half a continent to see. Fifteen thousand Sandhill Cranes were coming to roost.

"Lucky people who live in Saskatchewan, to have all this on their doorstep," I thought.

Saskatchewan is, indeed, a magic word to anyone interested in cranes, a sort of never-never land where one can see ten times as many cranes in one minute as one has ever seen before in one's life. It is also famous as one of the two stopover places for the very rare Whooping Crane on its long flight from Wood Buffalo Park, Alberta, to the coast of Texas. We looked eagerly among the thousands of Sandhills, hoping to see one of the great white birds. But we saw none.

It is not only crane specialists who know about the cranes of Saskatchewan. They are fast becoming known among the ornithologists and conservationists of the whole continent, especially since the members of the American Ornithologists' Union went on a special field trip to see them after their conference at Regina in 1959. When I was leaving New York on my way to Saskatchewan, several people asked me if I

didn't need someone to go along and carry my camera!

The cranes were coming over now in ever greater numbers, line after line, group after group, calling as they came. The call of the cranes is one of the wildest and most evocative sounds in nature, as beautiful to my ears as the lonely wail of a loon at dusk. It ranges from the loud clarion-like call of excitement as the birds leave the roost at dawn to the low guttural notes of family conversation. Like the yelp of the coyote, it is one of the loveliest and most characteristic sounds of the prairies.

At the Aransas Refuge in Texas, where the last remaining Whooping Cranes come to spend the winter, thousands of visitors come every year to see the birds. The Whooping Crane is probably the most famous bird in North America. The birds are closely guarded, and no one, bird-watchers included, is allowed to disturb them. A special observation tower, equipped with high-powered telescope, has been built so that visitors can watch the birds from a distance without disturbing them.

As the Sandhill Cranes came in to Last Mountain Lake, I thought how wonderful it would be if people from all over the country could come and

see them just as I was seeing them. It is truly one of the great natural phenomena of the continent. Not only bird-watchers but everyone interested in the outdoors should have a chance to see them. Millions and millions of people visit the National Parks every year—why not Last Mountain Lake too? To begin with, it has the distinction of being the oldest bird sanctuary on the whole continent. Besides the cranes, there are pelicans, geese, ducks, and a host of other birds. With proper care of the sanctuary and good advertising, it could rank as one of Saskatchewan's top attractions for tourists.

The sun had dipped below the western horizon now, and the orange clouds were turning to pale pink and then gray. Still the cranes were flying in, but in smaller numbers. Most of them were already crowded along the shores of the lake, talking excitedly but in ever-decreasing tones. Soon the last few stragglers arrived. The talking had subsided into a murmur, and gradually it died away altogether. The great evening flight of the cranes had ended, and the birds were going to sleep. It had been one of the greatest experiences I had ever had with birds.

Reluctantly, we turned to go.



Photo by F. W. Lahrman

The Sandhill Crane Problem

by George F. Ledingham, Regina



Photo by F. W. Lahrman

Dr. Peters (on the right) with the author.

When James Fisher, famous British ornithologist, watched great flocks of cranes rising into the air over the north end of Last Mountain Lake on Saturday, August 29, 1959, he said: "This alone was worth coming 4,500 miles to see." Since that memorable day of the A.O.U. field trip, much has been said and something has been done about the Sandhill Crane problem in Saskatchewan. Is it enough?

Since that date, the farmers at the north end of Last Mountain Lake have harvested two crops. The wet weather of 1959 delayed harvesting and the cranes did a lot of damage but they did not cause all the loss which the farmers suffered that year as some like to suggest. The 1960 crops were harvested quickly and grain bins are now full of wheat and open piles of grain are common sights in the fields of the area.

Harvesting of the spring wheat grown in this area cannot normally commence before the first of September. Cranes return to the area in large numbers about the middle of August. In the States there is little, if any, conflict between grain grow-

ing and the cranes since winter wheat can be harvested earlier in the summer. Farmers in the Last Mountain Lake area have already adjusted their harvest methods to minimize the crane damage. Combining standing grain is the common practice in the area because the cranes prefer not to land in standing crops although they may land in an adjoining bare field and walk into the edge of a crop. After crops are harvested the cranes will readily land in the stubble. If a farmer has to swath a field, perhaps because of weeds, he may suffer severe loss if the field is close to a crane roosting area or if threshing is delayed by inclement weather or other factors.

Because of crop damage in the fall of 1959, the farmers held a protest meeting and were able to prevail on the Saskatchewan Wildlife Branch to open the season on cranes so that the farmers could protect their crops.

Naturalists everywhere hate to see another species added to the list of game birds. They especially hate to see the Sandhill Crane added to the list because, of the ten species of the

genus *Grus* occurring in the world, this is the only species which exists in any numbers. L. H. Walkinshaw estimates that there are approximately 200,000 Sandhill Cranes. Other species of cranes, including the Whooping Crane, are extremely rare, or nearly extinct. Man should do what he can to prevent the extinction of any animal or any plant. Putting the Sandhill Crane on the list of game birds would be the first step toward putting another species on the verge of extinction. The cranes have a very slow reproduction rate. They take two years to mature and usually have only one young per pair.

The Saskatchewan Natural History Society at its annual meeting in Moose Jaw, October 17, 1959, passed a resolution requesting that the Saskatchewan Department of Natural Resources study the problem, taking into consideration the compensation of farmers for damage sustained. The resolution recognized, however, that compensation does not solve the problem. The true solution of the problem as we see it would require extension of the area in which the cranes receive complete protection. In this area crops should be planted and managed to attract the birds and to hold them in the area until the farmers in the surrounding area have had time to remove some or all of their crops. To supplement this programme exploders can be used to scare cranes back to the refuge area. Several short items in the **Blue Jay** have stressed the importance of scare devices. These will work effectively if the cranes can be driven to a refuge where they will not be disturbed. Farmers should use exploders as soon as they swath a field to keep the cranes from starting to feed in the swathed crop.

The Saskatchewan Fish and Game League has views similar to ours. In their September, 1960, **Saskatchewan Afield** there is an eight-page article on "Waterfowl and Agriculture." The article points out how thousands of acres of wetlands have been drained and cultivated and how no provision has been made for the wildlife which formerly occupied these areas. Ten photographs show the damage done by ducks and how the ducks can be fed in the refuges, as they are in the United States, to keep the birds out of

the farmers' fields until these have been harvested. The League places the major responsibility for solving the problems on the federal government since it is the migratory birds which are damaging the crops. The programme to meet the needs of hunters is a responsibility of the province. Although the Fish and Game article is concerned mainly with Mallards the same comments and solutions might apply to Sandhills.

Canadian Audubon, March-April, 1960, reports on the Sandhill Crane problem at the head of Last Mountain Lake. The Canadian Audubon Society hopes that a workable solution to the problem can be found and that cranes will always be present in this part of Saskatchewan. Your editor received one letter from a conservationist, Louis Segal of Montreal, expressing his regret that a hunting season with no bag limit had been opened on cranes in 1959 in Saskatchewan.

In reply to a letter from the Honorable A. G. Kuziak, Minister of Natural Resources of Saskatchewan, requesting our Society's views on grassland and other preserves, we suggested that the north end of Last Mountain Lake be developed as a refuge. We stressed the historic value



Photo by F. W. Lahrman

of the area, the oldest bird sanctuary in North America, its excellent recreational opportunities and its potential value as a bird refuge. We suggested that both farm land and water at the north end of the lake be included in a refuge where wildlife would receive complete protection at all seasons. We stressed the proximity of developed beaches and swimming facilities further south on the lake and suggested that only the simplest of facilities be provided in the refuge itself. Here there should be a Lookout Tower and some access roads so that the tourists could view the wildlife of the area. Publicity should be given to the area and provincial highway maps and tourist literature should locate the area and describe the facilities available and also the unique attractiveness of the area.

When the cranes returned in August, 1960, the farmers were not able to obtain permits to shoot cranes to protect their crops. The reason given was that there was concern that some Whooping Cranes might be shot. At the same time, it was announced that there would be an experimental open season on Sandhill Cranes in January, 1961, in parts of Texas and New Mexico. In January the Whooping Cranes would be in the Aransas Refuge and there would be no danger of any of them being shot. It was suggested that the population of Sandhill Cranes would be reduced by this hunting season. Meanwhile some farmers continued to shoot at cranes in the Last Mountain Lake area.

The Sandhill Crane problem was discussed in several informal meetings during the A.O.U. conference at Ann Arbor, Michigan. The National Audubon Society decided to ask Dr. H. S. Peters, one of their field biologists from Atlanta, Georgia, to study all aspects of the problem in Saskatchewan and through the States as the cranes moved south and again during the hunting season in January. Since then Dr. Peters has been in Saskatchewan for nearly two weeks, estimating the population of cranes and the extent or possible extent of the damage that they could cause to crops. Fortunately for the farmers, but making Dr. Peters' task of appraisal more difficult, the harvest was

quickly accomplished and the cranes did less damage than usual. We hope to see Dr. Peters' report when his study is completed.

The Canadian Wildlife Service also studied the Sandhill Crane problem again this year. An earlier study by Dr. D. A. Munro, "The Economic Status of Sandhill Cranes in Saskatchewan," was printed in the **Journal of Wildlife Management**, Vol. 14, July, 1950. The 1960 study estimated numbers of cranes on a regular weekly basis from the middle of August to the end of October. It experimented with the use of exploders and with the use of airplanes in the herding of cranes. A brief report illustrated by kodachromes was given to the Saskatchewan Natural History Society on Oct. 22 by Ron Mackay of the Canadian Wildlife Service, Edmonton. Exploders were found to be effective in keeping cranes from crops and will be further studied next year. Aircraft were only effective in herding cranes to roosting areas. Cranes could not be forced to move any great distance with even as many as three planes and so it would be completely impossible to force cranes to migrate on to areas where the crops have already been harvested. Mr. MacKay's report supported the Saskatchewan Natural History Society in its recommendation of the planting of lure crops and the acquisition of further land in the area.

Our society feels that acquisition of additional land for refuge purposes at the north end of the lake is basically sound. To protect waterfowl and cranes in this peculiarly favoured area—so recognized since 1887—we would be withdrawing agricultural land which is devoted primarily to grain production. Every farmer, as well as every economist, is aware of the problems created by the current and growing wheat surplus. An article like Ralph Hedlin's "Wheat acreage must drop" (**Country Guide**, October, 1960), points up the urgency of taking a realistic view of the situation by seeking alternatives to wheat farming. For that reason it seems particularly appropriate to suggest that some of the farmers in the area might be engaged in refuge farming where crops are planted and managed for the sake of our waterfowl resources.

Regina naturalists had the privilege of seeing C. Stuart Keith's film on the cranes of Japan which had been shown earlier at the A.O.U. conference in Ann Arbor. Mr. Keith related his experiences with cranes in other parts of the world to his experiences with the cranes in Saskatchewan of which he writes eloquently in this issue of the **Blue Jay**. It should be said that Stuart Keith, who is doing research on cranes at the American Museum of Natural History in New York, had come with his wife to Saskatchewan to see the Sandhill Cranes, at his own expense.

Several days after seeing Mr. Keith's film a group of 25 people met at the Saskatchewan Museum of Natural History to discuss the Sandhill Crane problem. Dr. Peters and Mr. and Mrs. Keith were there, as were also John Livingston from the Canadian Audubon Society, Dr. Solomon and Dr. Gollop from the Canadian Wildlife Service, three farmers, A. Greenfield, A. Nelson and C. Johnson from the head of the lake, V. Jakkett, President of the Saskatchewan Fish and Game League, from Yorkton, six members from the Department of Natural Resources including E. L. Paynter, Director of the Wildlife Branch, and his assistant T. A. Harper (who acted as the

chairman of the meeting), four from the Museum staff, one from the Department of Industry and Information, and four representatives of the Saskatchewan Natural History Society. At this meeting of September 19, 1960, there was free expression of the different points of view of those present and it is to be hoped that out of this discussion there will come some real solution to the problem.

Many items showing interest in the problem have appeared in the local papers. Mr. G. Humphries and Son, Editors of the **Nokomis Times**, have published many letters on this subject and have also written excellent appraisals of the problem. I am sure that they have done much to make the people of the area more aware of the cranes as cranes, rather than just as pests which destroy the crops. The **Nokomis Times** will deserve much credit when solution to the problem is reached.

All people interested in natural history should be interested in the cranes for their grace and beauty and because they are a part of our natural heritage. Let's help to ensure the future of the cranes. Let's help to develop a refuge for them. Please write to your **Blue Jay** editor expressing your views on this problem.



Photo by F. W. Lahrman

Sandhill Cranes at Last Mountain Lake, September, 1960.

FORSTER'S TERN AND WESTERN GREBE NEST AT REGINA

by Elmer Fox, Regina

On June 18, 1960, accompanied by my son Reg and photographer Bob Hamilton, I located a nest of the Forster's Tern (*Sterna forsteri*). The nest was situated on "Tern Island" in Wascana Marsh in Regina. It contained a newly-hatched chick and two eggs, one of which was pipped.

"Tern Island" is near the stream-bed in the west-central section of Wascana Marsh. It consists of an irregular series of flat coarse gravel and sand ridges with some grass and weed cover. In most cases, the tops of the ridges are only a few inches above water level. Consequently, the island is subject to flooding from spring run-off and heavy rains. The Regina Natural History Society attempted to stabilize the nesting of the Common Tern in this area several years ago by dumping gravel on the site during the winter. It was on these gravel ridges that the nest of the Forster's Tern was located.

Occasional Forster's Terns are noted at the Marsh almost every year during spring migration, but when I recorded the bird during the breeding season I felt that the prospects of nesting were fairly good. Only one nest was located. I did not conduct a thorough search as I did not wish to disturb the birds any more than necessary. This is the first known breeding record of the Forster's Tern in the Regina area. Apparently, however, the young were not successfully raised. Mr. F. G. Bard, Director of the Museum of Natural History, reported that he visited the island on June 22 following a heavy rain and that the island was completely inundated and all the terns' nests destroyed.

On the same date, June 18, I rowed out from the island southeast along the stream bed and accidentally discovered a nest of the Western Grebe (*Aechmophorus occidentalis*). This nest was anchored in about four feet of water and was a good five feet in diameter. It contained four eggs. This is the first known breeding record for this bird in the Regina area. Two pairs of Western Grebes were noted throughout the summer

on Wascana Marsh. Occasionally young were seen either riding on the back of an adult or feeding alongside. The Western Grebe, therefore, was more successful in its first attempt to nest here than the Forster's Tern.

KINGFISHER AND CHAT BREEDING RECORDS

by Frank Brazier, Regina

A Belted Kingfisher (*Megaceryle alcyon*) was reported nesting this year in a burrow in the east bank of Wascana Creek just north of the Marsh by Ricky Sanderson, but the nest was vandalized and the five young perished (see Sanderson's story in the Boys' and Girls' Section of this issue). This is apparently Regina's first breeding record for this species.

On July 21, 1960, I found a pair of Yellow-breasted Chats (*Icteria virens*) with a bob-tailed youngster in the Boggy Creek Valley near Bredin Siding northwest of Regina. The bird seldom visits the Regina area. Jack Taylor saw one at Regina, May 19, 1935, and I saw one in 1954. In addition, there is a record of a pair presumed nesting in the Flying Creek Valley near Tregarva in 1939. (Soper, J. D., 1942. The long-tailed Chat in Saskatchewan. Can. Field-Nat. 56:83-85).

BLACK-THROATED BLUE WARBLER AT REGINA

by R. W. Nero, S.M.N.H.

An adult male Black-throated Blue Warbler (*Dendroica caerulescens*) found dead in Regina on October 26, 1960, provides the first record of this species for Regina and the third specimen for the province (see **Blue Jay**, 14:3). It is of interest to note that these three specimens are late October records. The first was collected on October 21 (1936) at Percival, the second struck a window at Moose Jaw on October 16 (1956). The Regina specimen was found by Christopher Davis (age six) on the front patio of his home at 6 Langley Street, Regina. It presumably died as a result of flying into a window. Christopher's father, Dr. Royden Davis, is an active member of the Regina Bird Group.

Further Observations of Distraction Display of the Western Meadowlark

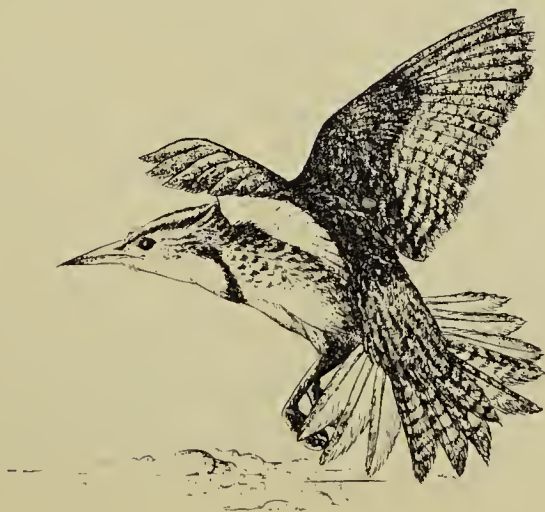
by Sam Alberts, Brooks, Alberta

A year ago I wrote concerning the distraction display of the Western Meadowlark (**Blue Jay** 18:9). I would like to make a few further comments on observations that I made this past summer of a similar display. The nest I found this year was on the shoulder of a graded road, and as I was irrigating a field of grain along this road I had a chance to see the nest several times every day. I was rather surprised the first time I got the mother bird up from the nest that I should again find a meadowlark making a distraction display. The act this bird put on could hardly be called a "broken-wing act," but rather a "broken-leg" or even an "act-with-only-one-leg". The nest was about two feet down on the road shoulder and in a small bunch of sage brush and grass. On leaving the nest the bird would fly up and onto the clean road bed, stop a second, make a couple of chirps, then always go up the road to the north. She would drag herself along on the ground, with both wings up in the air, for a distance of about fifty feet. It was indeed a very good act and it was only when the bird would alight upon a fence post that one could see that she had both legs.

My thoughts were that if a bird would do such a good act when only sitting on the eggs she would do a much better act when she had the young ones in the nest. It did not occur to me that after the eggs had

hatched the mother bird would not have time to be sitting on the nest. After the eggs hatched she was only on the nest once in several times when I stopped. She probably had also become accustomed to me bothering around as she did not at this time do much of an act. There were five eggs in the nest when I found it on June 22, and on July 3, four hatched out; the other egg did not hatch. On July 13, I visited the nest about eleven o'clock and decided that I should get some pictures that afternoon when the sun would be the best. However, during the noon hour the road grading crew moved in to rebuild the road and by the time I realized what was being done they had made the first round. When I drove up to where the nest had been I could see the mother bird sitting on the fence post with her bill full of insects but nothing to feed them to. I kicked around in the dirt and found the four small birds dead.

I also watched another meadowlark nest that I had found June 17, with six eggs in it, and at no time did the mother bird make a distraction display. I visited this nest every day and although it was very well hidden, when I visited it on June 25 the eggs were gone. It didn't look as if a straw had been moved. Although the two nests that I watched were both lost there has been a very heavy concentration of meadowlarks around here this fall.



Sketch by Ralph Carson

Western Meadowlark (from photos and description by Alberts).

A Migratory Congregation of Swainson's Hawks

by **Ralph D. Carson**, S.M.N.H., Regina

On September 16, 1960, Mrs. E. Cruickshank, Mrs. I. G. Smith and I drove out to the farm of Mr. and Mrs. J. H. Horn, seven miles southwest of Regina to investigate a report of a large flock of hawks which had gathered in their field during the past two weeks. As we drove through a large shelter grove of trees on the Horn farm we were astonished to see about one hundred Swainson's Hawks (*Buteo swainsoni*) fly out of the trees and begin to circle around us. There were many more hawks walking or standing on the ground in an adjacent green summerfallow field around a marsh. These birds appeared to be feeding on insects, possibly crickets, which were extremely abundant. Most of the hawks were in sub-adult plumage, but there were in addition many immatures, several adults, and three or four birds were melanistic or in dark phase plumage. In the same grove of trees were many small birds such as Tree Sparrows, Myrtle Warblers and Flickers.

A week later Dr. R. Nero and I drove out to make a further check of

this unusual gathering but we were disappointed to learn that the birds had departed several days previously. At this time about a dozen hawk pellets were collected from under the trees. Nearly all of the pellets consisted of solid masses of remains of crickets, but two were composed of grasshopper remains and one contained parts of a small bird.

Arthur C. Bent states (1937. **Life Histories of North American Birds of Prey**, Part I, p. 232-233): "Fall.—Late in August Swainson's hawks gather into large flocks, wheeling and circling high into the air as they gradually drift southward. . . . Many observers have noted the spectacular fall flights of these hawks, constantly passing in small bands, or in flocks of hundreds." There are apparently few records of this phenomenon in Saskatchewan. Fred W. Lahrman, who has lived on the prairies all his life, was unable to recall ever seeing so large a concentration of Swainson's Hawks. I would be interested in hearing from readers who may have seen this flocking behaviour.

Confiding Young Red Crossbills

by **Joyce Gunn**, Spirit Lake

This summer we had two visits by Red Crossbills to our yard. On August 10 and 11 we had four birds—one male and three females. They were seen in the spruce trees feeding among the top branches. Their crossed bills and absence of wing bars together with the red colouring of the male, made us certain that we had had our first visit from Red Crossbills.

On October 1 and 2 we were treated to a sample of the tameness of birds. During September, a Red Squirrel had stripped most of the cones from the trees, and cones were everywhere around the yard and doorstep, dropped as the squirrel carried them off to stockpile them in the woodpile. We first noticed the Red Crossbills from the kitchen window as two young birds sat on the ground near

the doorstep eating seeds from these dropped cones. I went outside expecting them to fly up, but they didn't, even when I stood right beside them! I finally bent down and gently touched one. Then they both flew up into the spruce, but within moments were back again. During that day I touched the young ones twice more without greatly alarming them. There were two young birds, both orange-red, with no wing-bars, and backs that showed all shades of green and purple in the sunlight. There was also a female in the trees, but I did not see her on the ground. The two young spent most of their time feeding from the fallen cones and were tamer than any other birds we have had around. They had no fear of humans or even of our cat which we had to keep in during their stay.

A Record of Flight Altitude of Whistling Swans

by R. W. Nero, Saskatchewan Museum of Natural History

Chester S. Brown (Director, Parks and Recreation Branch, Saskatchewan Department of Natural Resources) recently related to me an observation made by himself and pilot Earl Dodds of Whistling Swans (*Olor columbianus*) flying at an altitude of 7,100 feet (above sea level). Some 25 to 30 swans were observed flying southeast (downwind) over Deschambault Lake (50 miles west of Flin Flon) at mid-day on September 16, 1960. The swans were seen briefly just as the plane rose above cloud cover consisting of nine-tenths alto cumulus.

F. C. Lincoln has previously pointed out that "Actual knowledge of the altitude of migratory flight is scanty, though... accurate data resulting from altimeter observations from airplanes, are slowly accumulating... During the World Wars broad areas in the air were under constant surveillance and among the airplane

pilots and observers many took more than a casual interest in birds. Of the several hundred records resulting from their observation only 36 were of birds flying above 5,000 feet, and only 7 above 8,500 feet. Cranes were once recorded at an altitude of 15,000 feet..." (1950. **Migration of Birds**. Circular #16, U.S. Fish and Wildlife Service, Washington, D.C.)

The present record helps substantiate comments in the literature regarding high altitude flying in this species. According to A. C. Bent (1925. **Life Histories of North American Wild Fowl**) Whistling Swans "...usually fly rather high, and when travelling are often way up above the clouds." Dozens of Whistling Swans which were found dead in Wisconsin in 1954 were apparently killed by large hailstones while in flight at a very high altitude (H. A. Hochbaum, 1955. **Travels and Traditions of Waterfowl**. University of Minnesota Press).



Photo by F. W. Lahrman

Whistling Swans in the Regina Waterfowl Park.

Erwin Boeker Field-Checks Whooping Cranes



Saskatchewan Museum of Natural History Photo

Early in October Erwin Boeker, Flyway Biologist for the U.S. Fish and Wildlife Service, was in the province to field-check Whooping Crane reports. He was particularly interested in establishing the whereabouts of the young so that their progress might be followed on their journey south. He left Saskatchewan to be at the Platte River in Nebraska to check the cranes upon arrival there. Then he went to the Aransas game preserve where he was when the **Blue Jay** went to press. In Aransas he will check each bird upon arrival, noting the date of the arrival and whether it is a single bird, pair, or

pair with young. This information he will relate to that gathered earlier in order to determine which birds were lost in flight and where.

Mr. Boeker is in the province twice yearly to field-check the Whooping Cranes. He is stationed with the Denver office of the Fish and Wildlife Service, and does goose and waterfowl counts in addition to his work with the Whooping Crane. Mr. Boeker and J. M. MaDock were the two pilots who flew Fred Bard and Fred Lahrman over the Aransas reserve to see the Whooping Cranes last spring.—S.M.N.H.

Woodcock Sighted in Qu'Appelle Valley

by Sylvia Harrison, Regina

Rather than return directly to Regina after our pleasant outing with the Moose Jaw birders at the Valeport dike, our driver Marguerite Robertson suggested that we round out the afternoon by following the trail which runs along the north side of the valley and eventually joins Highway #6. At one point the Qu'Appelle River winds within a few feet of this road. Here our attention was caught by a muskrat rippling through the otherwise still water. We drew to a stop to watch the mate on the shore, then we noticed a large heavy wader feeding on the edge of the south bank. "Why, it's a Woodcock!" exclaimed

Pearl Guest. The bird seemed unconcerned about being watched as it probed a long post-like beak into the mud, meanwhile displaying a rosy-tinged breast. We ventured out of the car to gain a better view and were rewarded as it took a short flight up the bank to the pile of dead willow in front of the standing scrub. Then, moving with an action which reminded me of a grouse, it crept over these fallen trees and disappeared from view just as nine Greater Yellowlegs, flying in formation, rounded the bend of the river and came to rest on our side of the stream, distracting our attention from the elusive Woodcock.

Caspian Tern at Regina

by Frank Brazier, Regina

Although I have a record in my field notes of an unconfirmed sighting at dusk May 28, 1958, no Caspian Tern (*Hydroprogne caspia*) has ever been reported in the Regina area. They have, however, been seen at Old Wives' Lake and they breed at Dore Lake far to the north. In the early evening of July 22, 1960, Elmer and Reg Fox and I were on the east side of Wascana Marsh hoping to find that the Common and Forster's Terns had re-nested after the disastrous flooding of June (they had not) when I spotted a black-capped white tern flying low on the west side of the Marsh. Happily it was a dull day so that I could see it well even against the evening sky. It

turned and came towards us and we could see by comparison with the Ring-billed Gull which accompanied it that this was neither a Common nor a Forster's Tern. It was as large, if not larger than the gull, so it was obviously a Caspian Tern. Soon the tern was flying close by and the full details could be seen by all three of us—great red bill, short slightly-forked tail, and huge size. There was no mistaking the Caspian Tern—our first record for the Regina vicinity. The following evening I was on the opposite side of the Marsh on top of the high bank, alone, when a Caspian Tern (probably the same bird) flew up from the Marsh over my head, in bright sunlight. This was the last time I saw it.

Barn Swallow Nest Successfully Relocated

by Joe Herperger, Pilot Butte

Last spring, soon after workmen completed the framing of houses for the engineers who are to work on the Hydro Development Dam at Squaw Rapids, on the Saskatchewan River, a pair of Barn Swallows proceeded to build their nest under the eave of one of the new houses. Eggs were laid and hatched resulting in a family of three young swallows. Soon workmen had to put the siding on the house.

What was to be done with the nest of swallows? A kindly carpenter made a rough bracket and transferred the nest of birds into the front vestibule above the door. For weeks the screen was left out of the front storm door so the mother bird could come and go, feeding her young brood.

However, finishing carpenters and painters had work to do on the interior of the house. Work on the vestibule was delayed as long as possible, a base coat of paint being painted on the walls around the nest.

It was at this time, July 29, while working as a finisher, I decided to take a picture of the swallow family, almost ready to take to their wings. I rigged up a shelf to hold the Zeiss Ikon 35mm. camera using a .5m close-up lens and a Mecablitz Electronic Flash, at 1/100 sec. Just as mother swallow flew in to feed her brood, I snapped the picture, "Barn Swallows at Squaw Rapids". A week later the birds started flying, and we finished the house.



Photo by Joe Herperger

Photo conversion by S.M.N.H.



Photo by Kay Hodges, Calgary

COMMON TERN

A Possible Least Tern in Saskatchewan

by Frank Brazier, Regina

On the evening of May 26, 1957, in bright sunshine, Elmer Fox and I stood on the railway right-of-way crossing an extensive flooded field just south of Regina. Overhead the air was full of Common and Black Terns. Elmer suddenly called to me: "See that little white tern—what is it?" We both got our glasses on the bird in question as it wheeled among its fellows—a small white tern, with a black cap, much smaller than the Common Terns and about the size of the Black Terns. I have a distinct impression that the legs were light-coloured, but we knew nothing then of the field marks of the Least Tern (*Sterna albifrons*) so did not look for the white forehead and the yellow bill and legs. In the few moments when we could see the bird clearly before it swung westwards into the sun and was lost forever, we obtained the general impression of a small white tern with a black cap, about the size of a Black Tern.

Least Terns penetrate far up the Mississippi Valley so it wasn't unreasonable far from the northern limit of its range. For two or three days previously we had had strong

southerly winds. A tremendous river of air pouring at great speed northwards had flooded the prairies and the tern could have come this far simply riding the gale.

IN DEFENCE OF CROWS

Occasionally an item comes to our attention defending the much-maligned Crow. In this vein **Ernest J. White** of Dunrea, Manitoba, wrote recently to the **Blue Jay** about the great flocks of crows which he watched in the fields and pastures during the month of August this year. When he looked at them closely he could see that they were catching grasshoppers. The crows were also spotted many times on the summer-fallow, also catching grasshoppers. This service to the farmers, Mr. White feels, far outweighs any damage the crows may do. We remember Doug Gilroy describing the great flocks of crows that moved through the Regina area last year and settled on the swaths—but not to eat grain. They were discovered to be hunting grasshoppers and crickets.

Game Preserve at Valeport Marsh

by Dave Green, Regina

Credit is due to the Wildlife Branch for the establishment of a permanent wildlife sanctuary at Valeport Marsh on the southern end of Last Mountain Lake.

The area, approximately one and one-half miles long by three-quarters of a mile wide, lies to the southwest of the C.P.R. right of way and Highway No. 20, immediately south of Valeport, and is bounded on the south by the P.F.R.A. dam across the Qu'Appelle River. Posted as a game preesrve by conservation officers, the Valeport sanctuary includes part of the wooded and rolling southwest side of the valley, an extensive area of open water, and admirable cover for nesting in the form of bulrushes and shoreline sedge.

Among the conservation-conscious citizens who have worked for the establishment of the sanctuary is Athol Sweet of Craven, who has owned property to the west of the marsh for many years. Mr. Sweet particularly asked to have his land included in the preserve.

Thirty years ago the marsh was known as one of the finest nesting grounds in southern Canada. To discuss a programme to preserve the marsh and to restore it to its former bounty, a meeting was called at Craven in May of this year by conservation officers Ray Puddicombe and Peter Bergren. It was decided at the meeting that a "goose-seeding" project should be tried at the marsh, and in accordance with approved methods, approximately 100 young Canada Geese were transported to Valeport from the Wascana Waterfowl Park in Regina at banding time, July 6.

Since it is an observed fact that waterfowl have a tendency to return to the place from which they learn to fly, it is hoped that ensuing years will see an increase in the goose population at the marsh.

In addition to the geese, approximately 70 varieties of birds find sanctuary in the marsh. Waterfowl, wading birds, birds of prey and song-birds take shelter among the reeds

or on the wooded hills nearby. The Valeport game preserve was established for the protection, propagation and perpetuation of birds and animals. It will afford protection to migratory waterfowl along the flyways, and, with the co-operation of sportsmen and the public in general, should provide an admirable breeding ground where a goose population can be built up to the benefit of the entire southeastern part of the province.

Sportsmen are particularly urged to refrain from shooting geese in the vicinity of the Valeport and Wascana sanctuaries, where the birds have been raised under artificial conditions and are consequently unwary of predatory humans.

Future plans for Valeport Marsh include an annual transplanting of geese from Wascana Waterfowl Park to the sanctuary for several years. Floating nests, constructed by the Saskatchewan Fish and Game League, will provide the honkers with safe, dry nesting sites, supplementing the natural nesting sites located on dikes, islands and shoreline.

Despite the successful build-up of birds in the Regina area, the natural process of dispersion does not seem to be enough to assure a healthy diffusion of geese throughout southern Saskatchewan and present plans call for a successive transplanting of birds into suitable areas like the Valeport Marsh.

CHRISTMAS BIRD COUNT 1960

In your report, list the numbers of each species seen on the **ONE BEST DAY** between December 21 and January 1. In addition, list other species (number of individuals and date seen) between December 21 and January 1.

Send reports as soon as possible to

Dr. STUART HOUSTON
2401 Hanover Ave., Saskatoon

Wetlands and Waterfowl*

by **H. Albert Hochbaum**, Director of the Delta Waterfowl Research Station

The Delta Marsh, in Manitoba, is a great and famous place, renowned for its waterfowl and, of course, for its hunting. I can never forget my first visit there. Travelling up from Madison, Wisconsin, I drove all day across the prairies of Minnesota. Here and there along the way were sloughs and potholes (many of them now gone), each holding a few ducks—Shovelers, Blue-winged Teal, Mallards and Pintails with now and again a pair of Redheads or Canvasbacks. As the sight of ducks excited me, I kept saying to myself: "This is nothing; just wait until I arrive on the Delta Marsh. There'll be vast numbers of waterfowl, huge flocks of them and great clouds more will rise as I round each bend, countless thousands of ducks for me to behold in the heart of their June breeding marsh."

There was then, in 1938, still little understanding about the spring populations of the breeding grounds. My first view of the great marsh was thus a tremendous disappointment. To be sure, there were many birds—Franklin's Gulls by the thousand, Western Grebes, Eared Grebes, Forster's Terns and Black Terns in wonderful abundance. But the ducks were only in scattered pairs and singles, and occasionally small flocks. Wherever I went there were ducks, but nowhere many. Of course, Seton had once expressed a similar disappointment and I should have learned of this from his writings. In his travels over the Canadian prairies he asked the settlers "Where do the ducks breed?" And always the reply was "North." No matter how far north he went, the reply was still "North." "Oh yes," the settler would say, "A few ducks nest around here, but most of them continue on." We often discussed this point at Delta years later and Bob Smith, who made some of the first aerial waterfowl surveys of the Arctic, was greatly amused when he reached the shore of the Arctic Ocean. "Yes sir," the people said, "there are some ducks

here; but most of them fly north to breed."

Ducks, of course, are not like gulls or terns. However gregarious in summer, fall and winter, the pairs must separate each to itself when it comes time to nest. Nowhere are there dense populations of pairs. So we learned that however important their function in summer and fall—as gathering and moulting places—the great stretches of marsh water, such as the Delta Marsh, play only a minor role as breeding range. For example the vast Delta Marsh with its seemingly limitless horizons holds fewer breeding ducks per square mile than the Minnesota pothole country. And this pothole range, where one is seldom beyond sight of ducks or farmsteads, covers thousands of square miles while the famous marsh itself holds less than sixty sections. It is much the same in Saskatchewan and North Dakota as elsewhere on the nesting grounds. Farmland pothole country accommodates more of our breeding game waterfowl than the huge marshes. In North Dakota, which has more breeding ground refuges than any other state in the U.S.A., figures presented by the U.S. Fish and Wildlife Service indicate that less than two per cent of the state's waterfowl nest on public sanctuaries. The rest are on small waters, mainly on private land.

We thus understand the importance of private land and small waters in the overall production of waterfowl. And when these areas fail, as in the present drought, there must also be a failure of many breeding attempts. Until recently we believed that when dry years came the waterfowl would shift to use the large stable marshes, the refuge areas and "duck factories" where water levels were held under permanent control. But this current dry spell has shown that this is not so. The refuges can hold only so many breeding pairs per square mile. Every section, every township, has its saturation point. When this is reached, the area cannot accommo-

* Address delivered October 22, 1960, to SNHS Annual Meeting.

date more productive pairs; indeed, there is some evidence that increase beyond a certain density will actually inhibit nesting and reduce local nesting success. In June, 1959, some managers of refuges in Minnesota and North Dakota were heartened by an influx of many pairs of Redheads, Mallards and other kinds, while similar gatherings built up on the larger marshes of Manitoba. But by early July it became apparent that these birds, displaced from some dried-out range, had not arrived to nest. They simply came to pass the time of day until their summer molt; then the gatherings travelled south without having experienced successful reproduction. This reduced nesting was evidenced in the fall bag tallies of 1959 which showed that in the Mallard and some other important prairie-breeding game species, hunters were killing more adults than young, harvesting the "capital stock" in a lean year when the crop of new birds was restricted.

Some of these ducks had tried to nest on their old haunts, but failed because of an early dry-out. Others had gone to new places, after they had found their old homes dry; but because of the delayed start, there were few renesting attempts. Still others tried to nest in thin vegetation around the drying water areas, but predator efficiency was greatly increased in the sub-standard cover. And some did not even attempt to nest, their breeding activity inhibited by some environmental factors related to the drought. The long and short of the season was a year of low success because of the drying-out of small waters on private land.

This is a very important point for us to understand, because drainage threatens to permanently remove most or all of these small nesting marshes from the agricultural range. And where they are gone forever, the rise and fall of waterfowl will not follow the wet and dry cycles; reductions will be permanent.

At one time the slough and pothole country reached far south of Saskatchewan into Iowa and southern Minnesota. This spring I spent two weeks in parts of these states which less than fifty years ago held a tremendously rich wildlife population. In the early part of this century, that country was wilder than southern Saskat-

chewan is now, the wildlife more abundant and varied because the land is richer, the climate more temperate. Old-timers told me of the abundance of Pinnated Grouse in that land where Prairie Chicken no longer live—but mostly the stories were of the ducks and geese that used to breed there, and of the unbelievable numbers that passed through spring and fall. Heron Lake, in Minnesota, was then known as the "Chesapeake of the west" because of the large number of Canvasback there; and when they took off from Heron Lake the roar of wings could be heard several miles inland. Small marshes were in view at every glance, rich in waterfowl and other marsh life. This region was then a major part of the breeding range of ducks.

The country was almost birdless when I called there this spring; I travelled miles before seeing a Meadowlark. The sloughs were gone, all but a few, the lakes with ugly, shrunk shoreline; the grassy meadows had all but vanished. Water had left the country by way of ditch and drainage tile. Under the influence of heavy farm subsidy, land has become so valuable that no person there feels he can truly afford to have a little bulrush and a span of water for a pair of teal on his property. It interested me that even those who condemned drainage and were saddened by the loss of breeding waterfowl had themselves removed the marshes from their own farms. When I mentioned this the answer would be: "I drained because I had to; I couldn't afford to do otherwise." This drainage was done with the aid of public funds in a land where one is seldom beyond sight of storage bins holding grain that cannot be sold. Here on these beautiful prairies the people are trading their small waters at public expense, for agricultural land to raise crops that have no market.

I also visited Mahnomen County in Central Minnesota (Mahnomen is the Indian word for Wild Rice); and there too the potholes are being drained. This is farther north and the job is only about half done. Here I saw the Federal Soil Bank, a program whereby farmers are paid to leave good land inactive. Rich farmland is taken out of production to reduce the harvest. But in this same county, potholes are also being

drained, again at public expense, to bring these wetlands into the realm of agriculture. In Mahnomen County and farther south around Heron Lake, many local people deplored the situation; they were saddened by the loss of their wetlands and their waterfowl. But everywhere I went I was aware of their one great consolation: the marshlands in Canada were unlimited, forever a place to go for recreation, forever a source of waterfowl when the agricultural counties of Minnesota and the Dakotas are drained. I suspect that many of these people would be sobered if they could only read the very fine report by Herb Moulding on the progress of drainage in Saskatchewan.

Drainage, of course, is not the only threat to waterfowl. Despite the fact that Mahnomen County, Minnesota, now has only half its marshes, the remaining sloughs and potholes are losing their breeding ducks with the reduction most severe in the Canvasback and Redhead. Surveys by the Minnesota State Conservation Department have shown a steady decrease in the numbers of breeding waterfowl in the remaining marshes even though these places have not been affected by drought and remain fine waterfowl breeding habitat. On the Lower Souris Refuge, in North Dakota, Redheads comprised about twenty-five per cent of the breeding population only a few years ago; now this species makes up hardly five per cent of local breeders. In Manitoba, the Mallard, which has always been one of the commonest nesting species, has declined on range that is good Mallard breeding habitat. In the early 1950's at Delta one could hardly spend a morning's casual walk without finding four or five Mallard nests. Now several mornings of intensive search may pass before a nest is found. Thus, in some important areas where habitat remains good, ducks are not present in sufficient numbers to use all the available nesting range. The implication is that waterfowl may be suffering from some other pressures besides drought and drainage.

It is important for us, as a group of scientists and naturalists, to consider the importance of managing waterfowl on a biological basis. At present we control the waterfowl re-

sources in two ways: firstly by the very restricted protection of breeding habitat; and secondly with the regulations governing the harvest by guns. Certainly in the control of the harvest there is much room for the application of information we now have in hand regarding the habits and life histories of the various species. In upland game, province by province, state by state there is a strong sense of responsibility to husband local supplies. Thus when new observations and discoveries are presented regarding the life habits and requirements of native game species, these quickly influence the plan for shooting. Native game is taken only when it is prime and ready, gunning limited to those years when there is a harvestable surplus, schedules and areas of shooting arranged with the welfare of the game in mind.

How different it is with waterfowl! Seldom is there evidence of local responsibility; and certainly the open seasons are at the convenience of the hunter at all latitudes, arranged with little thought to the special needs of one or another of the many species of waterfowl. The general attitude toward waterfowl was expressed recently in Minneapolis by a very intelligent and successful businessman. "I know duck hunting isn't what it used to be," he said; "But what are we to do? If we don't get our share in Minnesota they'll get them in Texas anyway." Surely, region by region, waterfowl are managed on a political rather than on a biological basis so that every man has his chance to harvest his birds before the next men on down the line take their share.

If we are to keep waterfowl as a harvestable resource we must manage the kill by plans based more solidly on our understanding of the biology of these birds. This must be done in an international manner with every region aware of its local responsibilities to this resource. As an example, let me cite our own management of the Canvasback and the Redhead. Only this morning (October 22) at Delta I saw a wild Redhead adult female with her wing feathers less than half grown. Throughout September in the southern parts of the prairie Provinces and northern tier of States there were many young diving ducks

and their mothers which were not yet able to fly. And yet the season on their breeding and molting marshes begins before the end of summer. This places these species under a grave and certainly a most unsportsmanlike hazard, albeit they are this year under some plan of special protection. We manage Canvasbacks and Redheads as if they had the same habits and were in the same abundance as Mallards and Pintails, but until we recognize the differences between these two kinds and arrange the time and the place of the kill accordingly—as is already routine with the various kinds of big game and upland game—the diving ducks will continue to lose ground.



Wildlife administrators should be wise enough to look at such species management from another angle. We have been managing the Mallard and Pintail as if these were of the same habits and numbers as Canvasback and Redhead. If we can protect diving ducks on their breeding and molting marshes in late summer and early autumn, there is no reason why Mallards and Pintails should not be harvested on agricultural fields early when their numbers warrant such advanced gunning. Such regional control is now routine with big game and upland game; it must come about eventually in waterfowl management.

Other regions are being equally selfish of waterfowl living under local responsibility for only part of the year. The method of harvesting Canada Geese in the middle-western United States is growing to the proportions of a national shame. Canada Geese, hatched and reared in ranges far beyond these mid-western states, are enticed, during their fall migration, to state and federal refuges by strict protection and careful feeding. Then, when several years of sanctuary and fine food have attracted thousands of Canadas to such a haven, the wildlife administrators surround the refuge with

state-built shooting blinds and pits. Behind this government ring of blinds, sometimes as far as twenty miles back from the refuge, private enterprise sets up a zone of commercial shooting grounds. The season is then opened on the unsuspecting geese and when the food in the refuge is exhausted, the birds must daily run the bloody gauntlet to nourish themselves. On these state shooting areas the hunter often has no other hunting activity than to hold his gun and pull the trigger. The blind is ready-made; he is directed by reflecting signs or, in some states, driven to the place of public slaughter in a state-owned vehicle. There is usually a barrier line between the public shooting range and the refuge beyond which no hunter must trespass. Even if his goose drops, he must not cross the line to pick it up or to put it to its merciful end. Behind one such barrier on a Missouri public shooting ground, investigators one year picked up more than 500 dead or crippled geese at the close of the season. The Milwaukee Journal for October 18, 1960, referred to such gunning on the Horicon Waterfowl Refuge as "a circus, a carnival, a killing resembling, if anything, a Roman arena." Biologists in some of these states are now thinking in terms of re-establishing a more natural dispersal of geese, but a trend of local and selfish use has been established and the misfortune of these public goose baiting pits will not be corrected on short order.

Not only should the regulations for waterfowl be based upon sound biology, and an awareness of local responsibility, but the game laws must be wise and easily enforced. The late T. Gilbert Pearson, of the National Association of Audubon Societies, urged that poorly planned, unenforceable waterfowl regulations could not help the ducks and geese, but, instead, had a tendency to induce disrespect for all game laws on the part of the hunter. Presently in both the United States and Canada there is the attempt to protect the Canvasback and Redhead by special restrictions on these species while at the same time hunters are allowed to kill other kinds of ducks on the same marshes where these protected diving ducks gather. Since very few hunters can identify Canvasback and Red-

head in drab juvenile plumage, especially the half-light of dawn and dusk, the law is broken many times before the hunter learns of his mistakes. Moreover, it has developed that some game officers charged with enforcing this law are not always sure themselves of the identity of these two kinds when seen in the gunners' bags; hence the rule protecting Redheads and Canvasback cannot be enforced with vigor. Bag tallies show these two diving ducks still high on the order of kill on some of the marshes they use so heavily in September and early October. Often, when a hunter has killed his second or third "mistake" bird without learning how to correct his error, his illegal bag is tossed into the reeds or given to friends to circumvent the law. Rather than simply asking hunters not to shoot birds which neither they nor the enforcement officers can always distinguish from legal game under field conditions (or in juvenile plumage), a wiser plan might be to protect the special marshes in Canada and the United States where such species gather. On northern waters this might not mean permanent closure of such areas but simply a delay in the opening date until the time in October when the main body of adult females and juveniles of Redhead and Canvasback have moved on. Protection of the marshes themselves establishes an enforceable pattern under which these vulnerable species might thrive. Marco Polo, writing of the game laws of Kublai, "The Great Khan" (A.D. 1259-1294), noted, in regard to the Khan's rule against hunting between March and October, that "as the breach of this order is attended with punishment, game of every description increases prodigiously."

What can we do as a society of naturalists to protect our wetlands and their waterfowl in the face of expanding agriculture and an enlarging population? Unlike the people of Iowa and Minnesota, we cannot rely on an unlimited range to the north of us, for in the prairies of Canada we now live in the heart of the breeding grounds for our game waterfowl. What is our place as a society in wetland management, waterfowl management? A group of this kind is more important than any of us realize because we are a

gathering of private citizens interested in our environment. I understand from Mr. Moulding's report that in Saskatchewan the drainage of small waters on private land goes ahead with at least fifty per cent financial assistance from the government. This is a higher rate of subsidy than applies in Minnesota or the Dakotas. It means that you and I are paying to have the sloughs drained. We thus shoulder not only an important part of the cost but a considerable responsibility. The pot-holes are being drained with our money, by our consent, and if we consider any part of this drainage program unwise, if we dislike the idea of removing the cattail and bulrush, the Gadwalls and Canvasback from the heritage we leave to our descendants, then it is time for us to look into the situation with care and speak with unity. Public opinion establishes public policy and the members of this Society can have a great influence on the trends in drainage.

This Society might also have a strong influence on the pattern of waterfowl management, not only here in Saskatchewan but elsewhere. The Saskatchewan Natural History Society, through its organ, **The Blue Jay**, has cultured a following and established an influence well beyond the borders of this Province. I urge your members to study waterfowl and game birds—surely investigations into the life history and ecology of these kinds is not to be limited to biologists in public office. Add the information you gain on waterfowl to our total understanding while at the same time you become versed yourselves on the work others are doing and the problems that are being studied relative to the welfare of ducks and geese. It is our responsibility to think and act and work as individual citizens and as a Society. It is essential that we learn as much as possible about wetlands, that we exert, on the basis of sound understanding, as much influence as we can toward the protection of the native waterfowl environment. It is vital that we ourselves help gather information toward the development of waterfowl regulations based on a knowledge of the habits and special requirements of the birds themselves, species by species, region by region.

PLANT NOTES

LONG-HEADED CONE-FLOWER



Photo by W. C. McCalla

Long-headed Cone-flower

Ratibida columnifera (Nutt.) Wooton & Standl.

The Cone-flower occurs in the three prairie provinces and south to Mexico. The rays are usually golden. Sometimes plants are found in which the rays are a rich brownish-purple and these plants are placed in the variety *pulcherrima*, meaning that they are very handsome.

Duneland Vegetation

by Keith F. Best and Arch. C. Budd, Swift Current

PRICKLY MILK-VETCH



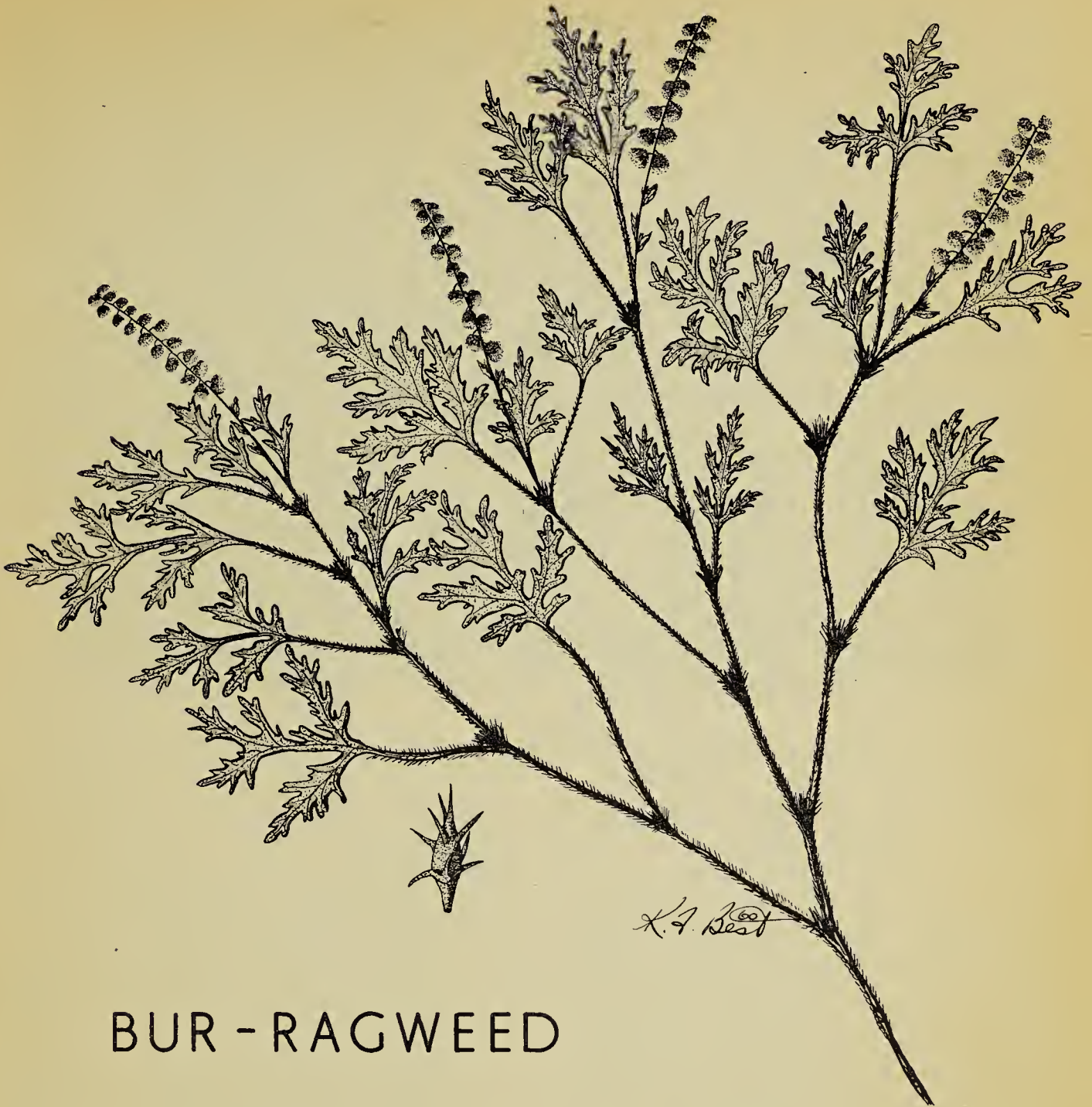
We discussed two legume species in the September issue that were generally confined to sand dune areas. Continuing our study of plants that indicate sandy soils, here are two more native species that are usually only found in our dunelands.

There is another legume occasionally found in the dunes, the Prickly Milk-vetch (*Astragalus kentrophyta*), a low tufted species with the leaflets and stipules spine-tipped. The leaves bear from five to seven still leaflets each from $\frac{1}{4}$ to $\frac{1}{2}$ inch long. The flowers are borne in small round clumps of three or four in the leaf axils and are yellowish-white with a pale bluish tinge, and from $\frac{1}{8}$ to $\frac{1}{4}$ inch long. The ovoid-oblong pods are very short stalked and about $\frac{1}{4}$ inch long. In southern Alberta it is found on the eroded bad-lands along

the Milk River but in Saskatchewan only in the sand dunes.

Bur-ragweed (*Franseria acanthi-carpa*) is another native plant rarely met with except in the sand dunes. This is a much branched plant with doubly pinnate leaves which belongs to the Ragweed family. The staminate flowers are borne in long terminal racemes while the pistillate flowers are clustered in the upper leaf axils and bear very spiny involucres. The fruits are very spiny burs and consequently the whole plant, when mature, is very uncomfortable to handle. Livestock in the dune areas appear to graze the young plants.

The sand dunes, although unfit for cultivation, are both picturesque and interesting, in early summer being a mass of wild roses, and affording not only grazing for livestock, but a haven for game birds and deer.



BUR - RAGWEED

Stinkhorns

by **George F. Ledingham, Regina**

Three times during 1959 and 1960 I have been asked to identify a rather rare and interesting plant. In each case, once each in Regina, Moose Jaw and Sintaluta, the plant was the stinkhorn *Mutinus caninus*. Mrs. E. L. Willoughby's letter of July 27, 1960, gives a good description of this plant.

Her description, in part, is as follows: "These things looked like small puff balls but when looked at had a skin like a soft-shelled hen's egg and the inside was a jelly-like substance which smelt like mushroom. From these balls, which were white, a finger-like growth appeared which was pink next to the ball and much

darker red on the outer half. These growths were over two inches long. When the finger-like part was opened it looked as if it was made from foam rubber."

The spores are produced on the outer surface of the red part of the finger-like structure. At this time, if Mrs. Willoughby had taken a good sniff, she would have noticed that the fungus had a very disagreeable odour. The smell attracts the flies and they carry the spores to other parts of the garden on their feet. The fungus grows saprophytically in the soil, perhaps for a long time, as a mycelium, much as mushrooms grow.

BOYS' AND GIRLS' SECTION

Edited by **Joyce Dew**, Saskatchewan Museum of Natural History



Saskatchewan Government Photo

Two Junior Naturalists examining an abandoned blackbird's nest in Regina Waterfowl Park.

NAME THE BIRD CONTEST WINNERS

This was a difficult contest and only fourteen boys and girls dared enter it. They deserve a special "pat on the back" for trying. Those who entered the contest were as follows: Doug Slimmon, Saskatoon; Roberta Forsaith, Carmichael; Brian Irving, Kelvington; Shirley Anderson, Rocanville; David Grout, Star City; Ricky Sanderson, Regina; Barbara Binnie, Saskatoon; Everett Anderson, Rocanville; Myles Ferrie, Invermay; Ann Marie Horasewich, Eaclesham; Jimmie Tysowski, Mankota; Barbara Beatty, Sturgis; Ricky Robinson, Maryfield; Darlene Swingen, Mankota, all of Saskatchewan.

PRIZE WINNERS were: **Brian Irving**, age 10, Kelvington, Sask., and **Barbara Beatty** of Sturgis, both of whom had one incorrect answer.

The correct answers are as follows: 1, Canada Goose; 2, Short-eared Owl; 3, Common Goldeneye; 4, Eastern Kingbird; 5, Boreal Owl; 6, Sora; 7, Bonaparte's Gull; 8, California Gull; 9, Canada Goose; 10, Sandhill Crane; 11, White-fronted Goose; 12, Whistling Swan; 13, Snow Goose; 14, Common Tern.

LETTER WRITING CONTEST

Rules:

1. Any boy or girl 16 years old and under may enter.
2. Entries must be first hand observation and not something copied from a book or other source.
3. All entries must be accompanied by the name, age and address of the sender.
4. Send entries to Miss Joyce Dew, Saskatchewan Museum of Natural History, Regina, to arrive not later than January 15th.
5. Prizes, which are awarded according to age, include field guides and subscriptions to nature magazines.

Prize Winner: The prize this issue goes to Ricky Sanderson for his careful observations of a Kingfisher's nest. Ricky took care not to disturb the nest unnecessarily in the course of making his observations and he is to be commended for this as well.

Calling All Boys and Girls

Your letters, comments, questions, suggestions, drawings and other observations are welcome at any time.

We look forward to hearing from you.



Photo by Fred G. Bard

Children birdwatching with Joyce Dew in Regina Waterfowl Park.

KINGFISHER OBSERVATIONS

by **Ricky Sanderson**, age 15,
Regina, Sask.

In early June, as I was making a periodic round of the Regina Waterfowl Park, I happened upon an uncommon nest. I was checking for Bank Swallow nests when I found an extra large burrow. It was about five feet up in the bank, three and one-half feet long, three inches high and about three inches wide. At the end of the burrow I could see only one white egg lying on the earth. Being unfamiliar with this type of nest I checked through several reference books and afterwards decided that it was a Belted Kingfisher's home.

It was not until several days later that I was able to see the adult bird. It was sitting on a dead branch carefully watching the water below. I noticed that each time the bird flew away it alighted on the same telephone pole. Only once did I see it dive from its perch ten feet above the water and rise with a small minnow in its long bill.

Upon my next visit to the nest site the parent bird never left the safety of its burrow. I could see it sitting on the eggs looking very worried. This was in late June.

On Dominion Day a quick check revealed a young bird and an egg in sight. Four days later there were a total of four young in the nest. With this check I discovered that someone

had been busy trying to enlarge the entrance of the burrow. No harm had been done to the young birds or the remaining egg, and I could hear the young squawking quite loudly.

During all my visits not once did I see the adult with any type of food, nor did I ever see more than one adult at a time.

Another check on July 6 revealed a tragedy. Two of the young Kingfishers had fallen from their nest and drowned in the shallow water below. Their eyes were not yet open and they had only the slight pinfeather on their wings. A second last check on July 7 revealed another tragedy. Two more babies had fallen into the water and one had drowned. The other one had landed on a chunk of mud and I was able to place it back in the nest, with the fifth baby that had just recently hatched. All was well on July 8 which was my last chance to check on the success of the nest.

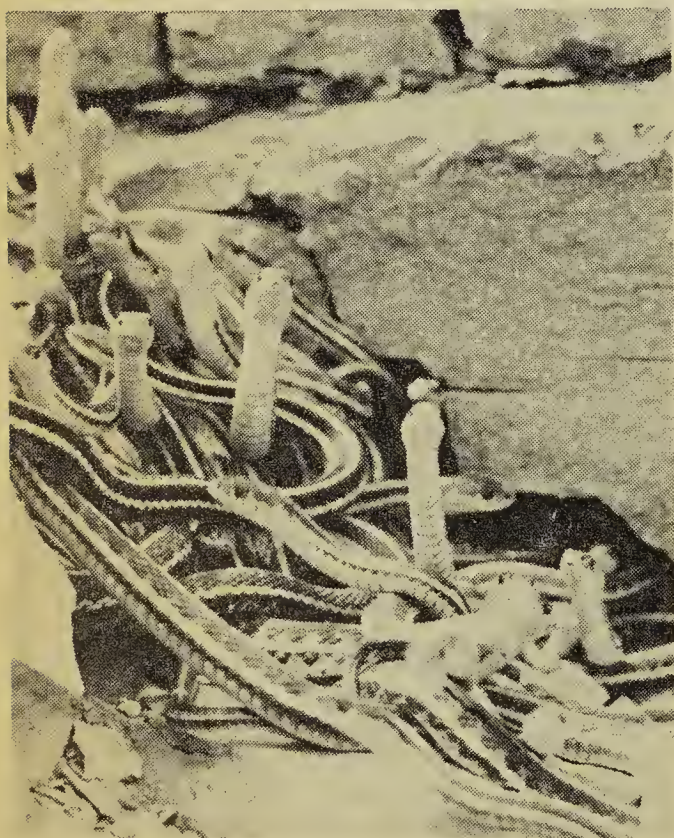
I arrived home August 5 after a long holiday, to find the nest empty. I checked to see what remained and found the remains of three crayfish and some small bones. There were also a few feathers that appeared as though they may have belonged to young birds, indicating that they might have reached the feathered stage.

Unfortunately I can't be sure of the success of the nest but even their attempt to nest here is another first for the Regina Waterfowl Park.

I WAS A BABYSITTER FOR A SNAKE

by Alex Steele, age 13, Regina, Sask.

Last summer my mother was working for the Museum and a boy brought in his Garter Snake to be looked after for two weeks while he was on holidays. My mother brought the snake home to me. It was quite a big snake. I used to take it out on the lawn and the kids would all come over and play with it and watch it. We carried it up and down the street one day and scared all the women with it. My sister was scared of it for a long time but she did pick it up before it left our house. When we were watering the lawn the snake would curl around the tree and soak in the water from the hose. We caught a bunch of minnows at the creek one day and put them in a tub of water and put the snake in with them. He sure enjoyed it. He would swim around about and then out would dart his tongue and then he would eat a minnow. That is about all we could get it to eat. We kept it in the basement in a box. One day it got away and we were scared it had gone down the sewer. However, I finally found it behind a trunk on the floor. The boy came and got his snake when he came back from holidays. Now I have a wee dog called "Midnight" and I am looking after him.



Is he talking about us?

AN UNUSUAL MOTH

by Ralph Underwood, age 13,
Strasbourg, Sask.

One mid-August evening while my brother was walking through our grove of trees he noticed a large moth clinging to a branch. He called me over to see and catch it for my collection of insects.

It had a good four-inch wing span. Its wings were broad at the front narrowing toward the back, and the edges were very irregular. They were mottled brownish-grey in colour, and there was a large irregular light coloured line running parallel with the outer edge of the wing. At the bottom edge of each hind wing was a small dark eye spot. Its antennae were very slender and about one inch long. Its body was dull grey in colour.

When we tried to catch it, it flew to an ash tree. It seemed to prefer to stay in an ash or elm tree. Finally we lost sight of it. It moved its wings very slowly like a butterfly.

I looked it up in "The Field Book of Insects" and found it to be an *Erebus odora*. This moth does not live in Canada but sometimes flies this far north.

ANIMALS OBSERVED NEAR SASKATOON

by Michael Gollop, age 10,
Saskatoon, Sask.

Robbie Tomzack and I saw three or more Franklin's Ground Squirrels near the Canadian National water tower on Clarence Avenue. They were seen on April 27, 1960. I also observed a lone individual on another road near there leading east off Clarence Avenue.

I observed one Hummingbird in a friend's flowers on the 2200 block on York Avenue. I observed this bird on September 3, but could not tell what kind it was.

Robbie Tomzack and I saw quite a few larval salamanders in a small but deep slough right beside where I saw the first Franklin's Ground Squirrels. There were two dozen or more. When I came back with my father we moved a raft from near shore and saw beneath it two adult tiger salamanders. All these salamanders were observed during the month of August.

HAWKS IN THE NEWS



Hawks continue to be in the news. Not only do they have laws passed for their protection but junior members have again written several letters about them.

COOPER'S HAWK NESTS

by **Myles Ferrie**, Invermay, Sask.

Near the middle of May I found a Cooper's Hawk nest near our farm one mile north of Invermay. The nest held three eggs. At this time I was not sure whether it was a Cooper's or a Sharp-shinned Hawk. On May 23, Eddy Shepherd, Graham Thompson, Gary Anweiller, Dr. Stuart Houston, and I were banding owls. I showed him the nest. He told me it was a Cooper's Hawk. He also told me Cooper's Hawks were very rare in this area. I visited it now and then until they were ready to band. When I returned a few days later with the bands they had left the nest.

About this time I had found another Cooper's Hawk nest with one egg. I came back a few days later and found the nest deserted.

I have found four Cooper's Hawks nests in two years with the help of Eddy Shepherd. And believe me, Eddy hasn't all the bad luck that he says he has. One 1959 nest was used twice, the other three were old crow's nests.

OUR PET HAWKS

by **Douglas T. MacFarlane, Jr.**,
age 14, Peebles, Sask.

My brother Donald and I brought two Red-tailed Hawks home when they were young fluffy chicks. We had found the nest before the eggs were hatched and watched regularly until we thought the chicks were big enough to bring home. Young as they were they were still rough and fierce to handle and we had to use gloves to protect ourselves from the sharp, strong claws. We had to force them to eat by stuffing mice and pieces of gophers down their throats but it wasn't long before they started eating by themselves. When we had them about a month we let them out of the cages and found that they were quite tame and happy to stay around the farm. We still had to feed them but the odd time we could see them swooping down on gophers and field mice. We hunted sparrows and mice with our B.B.'s in order to fill their great hunger. I could hold a mouse or sparrow in one hand and they would swoop down and take it out of my hand. Other times I would throw food in the air and they would fly down and catch it in mid-air. After having them about three months they began to fly further and further from the farm hunting food on their own. But they always returned daily. Now they are full grown and gone on their own. I have banded them and maybe some day I will see them again. Who knows, they may come back next year to have another look at their old home.

THE ALBINO SWALLOW

by **Kenneth Underwood**, age 11,
Strasbourg, Sask.

One day in late August my brother and I were coming down from the barn. We noticed a white bird on the power line. When we looked at it through Dad's telescope we found it was a Barn Swallow. It was just about pure white with a slightly yellow throat and a dark eye. We know it was a Barn Swallow because of its song and its deeply-forked tail. The other swallows seemed to be picking on it, but it still flew around with them.

WILD BUMBLE BEES

by **Kenny Tompkins**, age 15; **Kenny Stirrest**, age 12; **Peter Skichan**, age 12, Tisdale, Sask.

We were playing tag with a plastic bowling pin when we accidentally came upon the bees. I was hiding at what turned out to be the entrance of the nest when Peter threw the toy bowling pin at me. The pin flustered the bees and they were furious. I ran away from the nest and got the other two boys to help me investigate the nest. We waited until the bees calmed down a little, then we borrowed a bee-gasser from Barry Pugh and gassed the bees. Then we tore the siding off the garage and took the nest out to look more closely. We decided to see what was in the closed cells of the hive which was a large one. We opened them and found the following stages of bumble bee-larva, pupa, full-grown bee, besides honey and other interesting things. We thought our Natural Resources Conservation Officer would be interested and he was very interested. He took moving pictures of us and suggested that we send our story to the "Blue Jay."

Note: We would like to thank D. W. Pegg, the Conservation Officer, for encouraging the boys to send their story in to us.

SUMMER VACATION BIRD COUNT

by **Barbara Binnie**, age 11, Saskatoon

We left Saskatoon on June 30. Our destination was Cypress Hills. Along the highway between Swift Current and Maple Creek we saw many Lark Buntings.

Arriving at Cypress we found the tall pines and bushy areas around the lake alive with singing birds, many of which we were not able to identify. Among those which we were able to observe closely were a pair of Oregon Juncos building a nest, a Belted Kingfisher feeding its young in a sand bank and a Yellowthroat flitting about in the underbrush near the same sand bank. A pair of Black-capped Chickadees visited our campsite daily.

On our way from Cypress to Katepwa we camped at Moose Jaw

where we saw many Yellow Warblers and several Baltimore Orioles. Arriving at Katepwa we pitched our tent in the midst of a bee-hive of bird life. Both Yellow Warblers and House Wrens were busily feeding young, scolding and calling from early morning until late in the evening. A Least Flycatcher sitting on a nest of four eggs furiously attacked any small bird that came within a few feet of her home. The most colorful bird we saw was an American Redstart.

From Katepwa we travelled to my grandfather's farm near Lumsden, where we saw unusually large numbers of the native sparrows common to that area. While picking saskatoons we found a Clay-colored Sparrow's nest containing four tiny spotted blue eggs. The sighting of a Great Blue Heron was another first for me.

Arriving home we found several unusual birds in our garden. A Black-billed Cuckoo has been seen often. He is now so tame we can observe him at close range. We have also seen a Northern Waterthrush which does not hop like most birds but walks and wags his funny tail. Pine Siskins have been feeding with the Goldfinches on our sunflowers. Uncommon warblers include the Black-and-White and the Wilson's. A Red-breasted Nuthatch worked over the maple trees by our kitchen window.

Keeping a record of all the birds we saw during our travels and at home has made this a most interesting summer for me.

Clues For "NAME THE MAMMAL" Contest

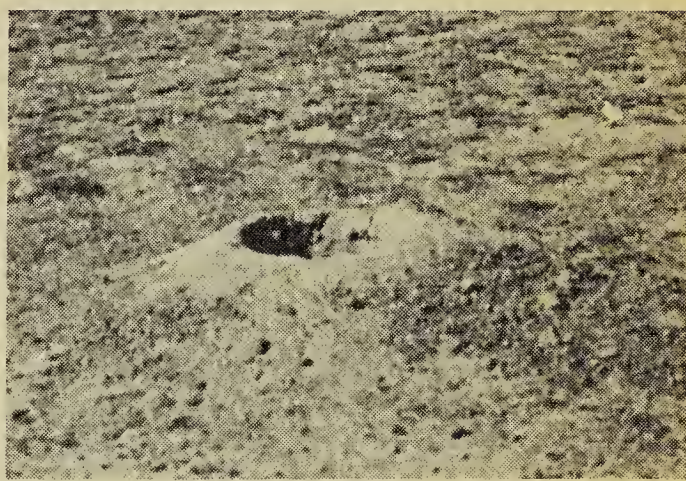
1. These mammals are members of the deer family.
2. The mammal which dug this hole is found in one place only in Canada and that is near Val Marie in Saskatchewan.
3. This mammal is rare in Saskatchewan and is found only in the sand dune region of the southwest.
4. This mouse is named after an insect.
- 5 and 6. These mammals are both rodents.

"NAME THE MAMMAL CONTEST"

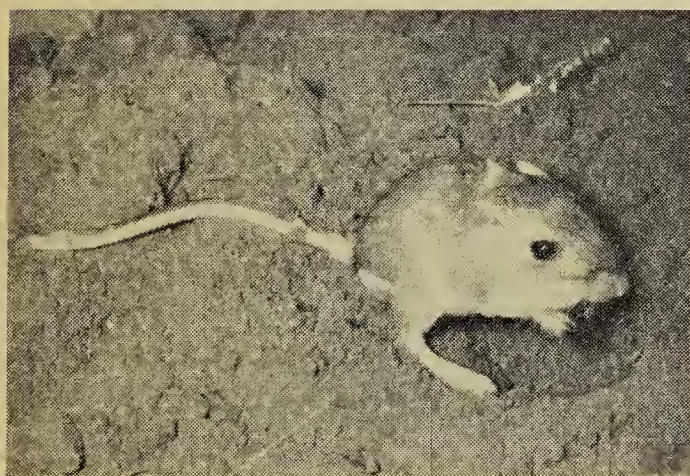
- RULES:**
1. Any boy or girl 15 or under may enter.
 2. Put your name, age and address at the top of a sheet of paper and number from 1 to 6.
 3. Clues to help you find the correct answer are found elsewhere in this section.
 4. Boys and girls 12 and over must write a paragraph of not more than 50 words about one of the mammals telling about its value to us.
 5. Send entries to: Miss Joyce Dew, Saskatchewan Museum of Natural History, Regina, to arrive not later than January 15.



1.



2.



3.



4.



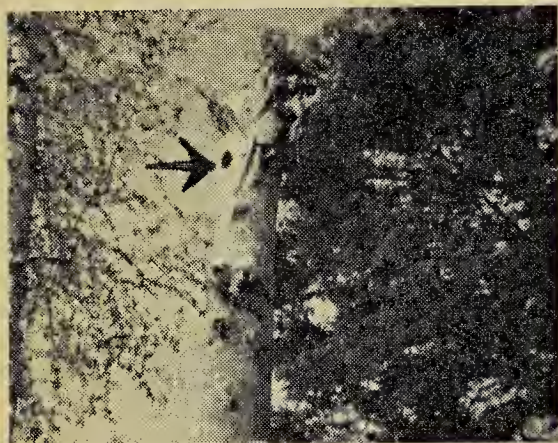
5.



6.

REPORT FROM URANIUM CITY

by **Pat Kerr**, age 15, Gunnar Mines,
Uranium City.



Yellow-shafted Flicker's nest (see arrow).

The following letter was received by Dr. Nero after his visit to Uranium City this summer. It was dated Oct. 19.

"I am enclosing a picture of a flicker's nest on Dome Lake. We have had our first snow and I saw a flock of six ptarmigan fly past our school this afternoon. After you left this summer myself and several others saw some small (about 6 inches long) type of bat. I may send some more

photos later on. If there are any samples of birds or mammals from this area, I will try to get them for you if you will let me know."

TAXIDERMY EXPERIMENT

by **Jack Zess**, Moose Jaw

Yesterday before school Jimmy Baily, a neighbour of ours, came to the door and asked for me. I went to the door. He had a dead sparrow in his hand and wanted to know what kind it was. I got my book and found it to be a Lincoln's Sparrow. Immediately I decided to try my hand at taxidermy. I got the chemicals and went to work. It didn't turn out too badly. Seeing that they are not supposed to live here I thought I'd let you know.



TAME DUCK

by **Ernest Skaar**, age 10, Hagen.

Insect Classification and National Collection of Insects

by **G. P. Holland**, Director, Entomology Research Institute, Ottawa

Editor's Note: The following item is part of a mimeographed article distributed on June 16, 1960, by Dr. Holland. We are pleased to print it because it stresses the importance of obtaining proper identification of specimens. If you would like to write about insects for the *Blue Jay* you should first get identification from your local Entomological Research Institute, e.g., Saskatoon (University sub post office) which houses part of the C.N.C. of insects. What is said here in support of proper identification of insects is true also for plants and other animals.

The scientific name of an insect is the key to all the information recorded for that species. Thus, a starting point in any problem in entomology is correct identification of the insect or insects involved. This is important because insects differ, physically and physiologically; each species has certain characteristics and limitations that determine its distribution, numbers, and habits. No two species are precisely alike in these respects. To use existing literature effectively, then, an investigator must know which species he is working with and, similarly, his own publications will carry little weight if he

does not specify the insect (or other organisms) that were involved in the experiments or observations reported.

The classifying of insects is a science in itself and is known as insect taxonomy or systematics; individuals trained in this field are called taxonomists or systematists.

The main concentration of insect taxonomists in Canada is in the Taxonomy Section of the Entomology Research Institute in Ottawa. There are more than twenty such officers in the Institute. Assisted by a number of technicians, they make identifications and conduct original researches on insect classification.

Their main working tools are the Entomology Library and the Canadian National Collection of Insects. The Collection includes preserved specimens of insects, mites, and spiders; each specimen is specially prepared and labelled with locality, habitat and other data. The Collection is maintained in special cabinets in a manner planned to ensure its safe

preservation for centuries. The specimens are identified by taxonomists and arranged in a fashion to illustrate the natural relationships (evolution) of the species and other groups.

Unlike other major national collections in this country, most of which are maintained and developed by the National Museum of Canada, the C.N.C. of Insects is, by agreement, the responsibility of the Department of Agriculture. The main collection is kept in the south (old) wing of the K. W. Neatby Building where it occupies much of the third floor. The taxonomists with their microscopes, books, and other equipment occupy small rooms adjacent to the Collection.

Many of the field laboratories of the Research Branch maintain small reference collections of insects; these are considered as part of the C.N.C.

The total Collection contains over three million identified specimens representing about 56,000 species plus many thousands not yet identified. It contains the "types" (original specimens from which species were described). It contains 7000 species. Most of the specimens are North American but there is important material from many other parts of the world. It contains the largest collection known of Arctic insects.

The Collection is stored in several types of cabinets and occupies some 10,000 square feet of floor space.

Large as it is, the C.N.C. contains representatives of only about 5% of the world fauna of insects, mites and spiders, though a much larger percentage of the North American fauna is represented. On the basis of comparison with countries that have been very well studied entomologically (e.g., the United Kingdom), it is estimated that as many as 80,000 different kinds of insects may occur in Canada alone! Obviously, then, the C.N.C. cannot be considered as complete, and we must continue to develop it!

The Collection is used as a tool for identifying harmful and beneficial insects. In addition, it forms the basis for research on insect classification, distribution, and habits.

It has already been pointed out that an investigator should know what he is working with, whether it be a

chemical, a mineral, a plant, or an insect. Each year the taxonomists of the Entomology Research Institute identify more than 30,000 specimens submitted by inquiring persons. In so doing, they constantly refer to properly identified material in the C.N.C.

The ultimate objective of the insect taxonomist is to make it possible to identify or name all species of insects. Canadian scientists in this field concentrate on the 70-80,000 species that occur in Canada and seek to determine their distributions, habits, food preferences, environmental relationships, and economic importance. Each taxonomist, in addition to providing identifications to entomologists in other fields such as insect control, also studies a segment of the fauna and publishes papers that will assist others to identify insects. Material in the C.N.C. forms the principal basis for his research.

The taxonomists of the Entomology Research Institute use the Collection regularly but other officers of the Research Branch visit Ottawa to study the Collection, or use the regional collections. Taxonomists from many countries visit Ottawa especially to study material in the C.N.C. At times, portions of the Collection are sent out on loan to accredited specialists or to graduate students at universities.

The Collection grows by gifts, purchases, exchanges, retentions from material submitted for identification, but mostly from fresh material collected on insect surveys organized by the Institute. The long-range needs of the Collection (especially as relating to current projects) are considered by a committee, and each year, field parties of one to five individuals are sent to areas from which specimens are required.

A number of the taxonomists go into the field each year to collect insects and to carry out other field studies. It is important for the taxonomists themselves to participate in the collecting because (a) as specialists, they do it better than anyone else, and (b) they have then an opportunity to study the species they are concerned with in a living state.

The Collection grows at an average rate of about 150,000 specimens annually.

Thomas F. Kehoe Attends Conference for Western Canadian Archaeology



DELEGATES OF CONFERENCE FOR WESTERN CANADIAN ARCHAEOLOGY

Back Row Left to Right: Robert E. Greengo, University of Washington (Seattle); Robert Kidd, University of Washington (Seattle); Jack Herbert, National Historic Sites (Ottawa); Richard S. Daugherty, Washington State College (Pullman); Richard S. MacNeish, National Museum of Canada (Ottawa); Thomas F. Kehoe, Saskatchewan Museum of Natural History (Regina); Douglas Leechman, National Museum of Canada (retired in Victoria); Wilson Duff, Provincial Museum of British Columbia (Vancouver); Thomas R. McCloy, Glenbow Foundation (Calgary).

Front Row Left to Right: Secretary, Glenbow Foundation (Calgary); Richard G. Forbis, Glenbow Foundation (Calgary); Secretary Glenbow Foundation (Calgary); Delegates, University of Alberta (Edmonton); Claude E. Schaeffer, Museum of the Plains Indian (Browning); H. Kenneth Cronk, Saskatoon Archaeological Society (Saskatoon); Charles E. Borden, University of British Columbia (Vancouver).

The first Conference for Western Canadian Archaeology was sponsored in Calgary, Alberta, by the Glenbow Foundation during September 7-10. Delegates from Saskatchewan were Thomas F. Kehoe, Curator of Archaeology and Ethnology at the Saskatchewan Museum, Alice B. Kehoe, and H. Kenneth Cronk of the Saskatoon Archaeological Society.

The Conference included all those professionally active in western Canadian archaeology (see photograph), and the delegates resolved to constitute themselves a Council for Western Canadian Archaeology, in order to promote effectively the scientific study of the West's prehistory. An important problem discussed at the Conference was the destruction of many of the most important pre-

historic sites, either by untrained amateur collectors or by the construction of roads, dams, and cities. British Columbia's delegates, Wilson Duff of the Provincial Museum, and Charles Borden of the University, outlined that province's new law for the protection of antiquities and sites, both historic and prehistoric. The Conference agreed that each province should pass a similar law to protect its heritage from the past, and recommended also that all building contracts should require the contractor to have areas threatened with destruction checked by a professional archaeologist, and any archaeological information and materials salvaged before work proceeds. The scarcity of competent archaeologists in the

(Continued on page 187)

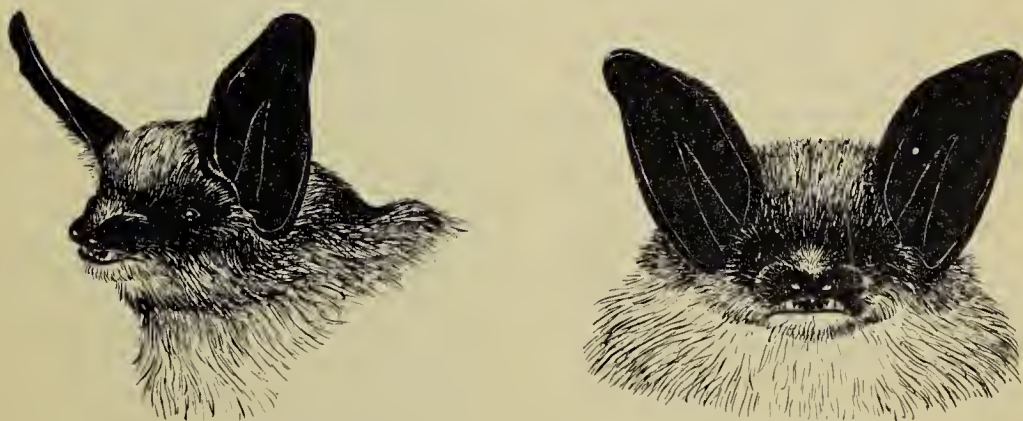
Long-eared Myotis Found in Saskatchewan

by R. W. Nero, Saskatchewan Museum of Natural History

Fred Bock (summer field assistant, S.M.N.H.) collected two bats with .22 bird-shot in the valley of the South Saskatchewan River, north of Main Centre, Sask., late in the evening of June 24 and 25, 1960. One of these bats, which were preserved in alcohol, is a female Small-footed Myotis (*Myotis subulatus*), and is the third provincial record of this species (see **Blue Jay**, 17:169). The other bat has been identified as a male Long-eared Myotis (*Myotis evotis*), a species listed as hypothetical on the basis of its occurrence in adjacent regions (Beck, 1958. A Guide to Saskatchewan Mammals). Identification of this bat as *Myotis evotis* has been confirmed by Prof. W. H. Burt (University of Michigan Museum of Zoology). Measurements of the preserved specimen are: total length—88 mm, length of hind foot—8, length of ear from notch—19, length of forearm—38, length of third finger—63, length of tragus from notch—12, greatest length of skull—16.7, interorbital constriction—4.3, mastoidal breadth—7.5, breadth of braincase—8, greatest height of skull—6.8, and alveolar length of maxillary tooth row—6.3. These measurements may be useful to mammalogists concerned with the close similarity between this species and Keen's Myotis (*Myotis keenii*) another small brown bat with large ears which has been recorded in north-

central Saskatchewan and which is to be expected from there throughout the southeastern portion of the province. Both species are represented in Saskatchewan only by single specimens; additional collecting will be necessary in order to determine their exact ranges.

The Long-eared Myotis ranges from southern British Columbia, Alberta, southwestern Saskatchewan, western North Dakota and South Dakota south to central Mexico. It is an inhabitant of thinly forested to semi-desert areas and appears to be uncommon. It prefers to roost singly or in small clusters in secluded niches of buildings and probably in trees. (Hall and Nelson, 1959. The Mammals of North America). According to W. W. Dalquest (1948. Mammals of Washington) the species apparently does its hunting late at night and is therefore difficult to collect. As might be expected little is known of the habits of this bat. This species is another member of a group of western animals found in Saskatchewan in the southwestern corner. The area of the South Saskatchewan River valley where this bat was found is generally sparsely vegetated and arid. There are many bare rocky exposures, cliffs and ravines which offer suitable hiding places for bats. Olive-backed Pocket Mice (*Perognathus fasciatus*) and Spade-foot Toads (*Scaphiopus bombifrons*) have been collected in the same locality.



Drawing from preserved specimen by Ralph Carson
Long-eared Myotis. natural size.

A Mountain Lion Near Regina

by Frank Brazier, Regina

On Tuesday, July 19, 1960, Pearl Guest telephoned me about a strange bird she had seen the evening before at Bredin Siding in the Boggy Creek Valley some 12 miles northwest of Regina. Spurred on by the hope of seeing a rare bird, Elmer Fox and I drove to Bredin Siding that evening and parked at the railway crossing about 7.30 p.m. It was a fine, bright day. We saw nothing that resembled Pearl's bird, but we walked westward along the track scanning the area hopefully.

Where the railway crosses the creek by a small bridge about a mile from Bredin Siding I noticed the bright tawny coat of an animal about 30 yards downstream on the bank, partially obscured by a bush. My first thought was of a deer, as deer are common enough there, but as I got my glasses on it, it raised its head and I was staring into the face of a large, green-eyed cat which had reached up to investigate a cavity under the lip of the creek bank. Elmer was a few steps ahead of me. "Elmer," I called softly, "a Bobcat!" Together we watched it drop to all fours and move out from behind the bush into full view, in bright sunlight. For at least 30 seconds it

scrutinized us while we scrutinized it, then it turned away and moved calmly down the creek and out of sight beyond a bend. It was then that we noticed the tail—unlike the short upright tail of the Bobcat or Lynx, this was a long tail which drooped as long tails do. We could also see that the ears had no tufts on the tips, so this was no Bobcat or Lynx. I estimated that the cat stood about 20 inches at the shoulder.

Before it moved away I could see through my glasses the dark circles faintly showing on its tawny coat. These would be the fading spots of its baby coat, so the cat could not have been more than a few months old. Although the kittens of the Lynx, Bobcat and Mountain Lion are all variously spotted and striped, the first two quickly lose these marks, according to Sanderson (1950), but Mountain Lion kittens carry traces until six months old. Young (1946) states: "The young are densely spotted and the tail is ringed. These markings gradually disappear as the adult stage is reached; occasionally a few faded spots will be found on half-grown individuals."

We walked over to the spot just vacated by the cat and found one excellent track in the mud which looked about $2\frac{3}{4}$ inches across. The

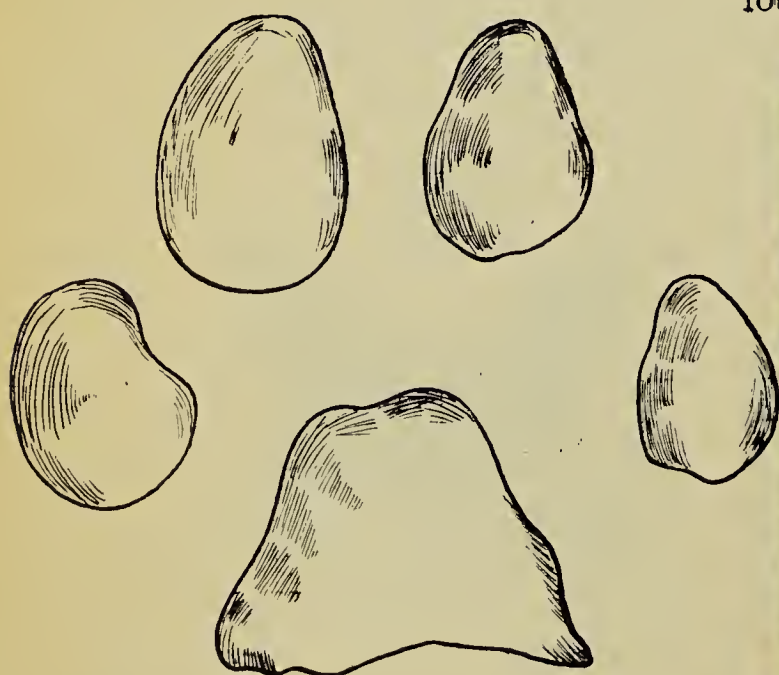


Diagram of hind-foot track—3" x $3\frac{1}{2}$ ".



Museum Photo

Cast of cat track near Regina.

following evening Elmer brought Fred Bard, Director of the Museum of Natural History, to the spot to make a cast of the print. A comparison of the track with a Mountain Lion print shows that they are identical except for size. The print of our cat did not resemble Bobcat prints. Elmer taped the distance from the print to the cavity the cat had its nose in when I saw it—six feet!

There is not much doubt that our cat was a young Mountain Lion (*Felis concolor*). This, our largest cat, is known by many names—Mountain Lion, Cougar, Puma. Young presents a good case for the rejection of all but Puma, the name by which it was known to the Incas in the Quechua tongue.

Beck (1958) reports "occasional stragglers" in Saskatchewan. As a straggler, an adult Mountain Lion would not be difficult to account for at Bredin Siding, although this is miles from its normal range. However, our cat was perhaps only a few months old judging by its coat markings, size, and fearlessness, and Young tells us that young Mountain Lions up to two years of age are often found in the company of the mother. Where was this young cat born?

The first definite record of the Mountain Lion in Saskatchewan, according to Young, was the one shot by Harry Wahlgemuth on August 18, 1939, near Kindersley (Cf. **Canadian Field-Naturalist** 56:45, March, 1942). The only specimen in the Saskatchewan Museum of Natural History was taken by Joe Fournier at Connell Creek in the Pasquia Hills. In addition, there have been a number of sight records for the province reported to the **Blue Jay** or to the Wildlife Branch of the Department of Natural Resources. Tom Harper tells me that the Branch has reliable recent reports of the Mountain Lion from Assiniboia, just outside the range that Young gives which includes the Saskatchewan "badlands." Tom Harper has also told me that one of the game management officers, Adam Folk of Hudson Bay, has seen tracks of Mountain Lions and the animals themselves in the Pasquia Hills. This is an extremely rough, trackless wilderness between the Carrot River and the Hudson Bay railway—about

2,000 square miles of tangled forest, muskeg and swamp with only winter roads into it. The Indians of the Shoal Lake Indian Reserve to the north also know of the Mountain Lion, according to Mr. Folk.

A letter written to the Museum by Mr. Scofield of Inchkeith on June 25, 1960, tells of a number of lambs being lost over the last two years to an animal larger than a coyote. The lambs "are bitten through the back of the head or through the back in the ribs by an animal that has canine teeth approximately 1½ to 2 inches apart . . . and as many as five at a time have been killed . . . he eats only one . . ." The killing habits so described are like those of the Mountain Lion.

Inchkeith is just north of the Moose Mountain Provincial Park and good cover extends all the way from the Pasquia Hills south to Moose Mountain. Here deer (the bread and butter of the Mountain Lion) are plentiful. Perhaps an occasional big cat works southward (this could account for the Inchkeith killings), thence westerly along the Qu'Appelle Valley. The young Mountain Lion we saw may not, then, have been too far from home.

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MOUNTAIN LION AT LEADER

by Daisy Myers, Leader

On September 19, 1960, my parents and I were surprised to see a Mountain Lion or Cougar. We were driving slowly on a little-used road up a pasture coulee when it loped from out of the brush on the west side of the road, ran slowly across the road and disappeared into the brush on the other side. This animal was seen on the NE ¼ 29-23-25 W3 about nine miles northeast of Leader.

Large Plains Garter Snake Found

by R. W. Nero, S.M.N.H.

A Plains Garter Snake (*Thamnophis radix*) found by myself and Ralph D. Carson on October 15, 1960, in an aspen grove near McLean, Saskatchewan, measures 43 inches in total length and is apparently the largest recorded individual of this species. According to Roger Conant (1958. **A Field Guide to Reptiles and Amphibians**) 40 inches is the maximum record. Francis R. Cook, Curator of Herpetology, National Museum of Canada, reports a 40½ inch specimen collected near Souris, Manitoba, this past summer as the largest known to him. He suggests that our northern specimens are possibly slightly larger than those found elsewhere, but he is careful to point out that a large series will be necessary to establish this. Our specimen may be a particularly old individual since reptiles and amphibians continue to grow in size throughout their life. Although October 15 was a rather cool and windy though sunny

day the portion of the woods where we found the snake was sheltered and warm and the snake was very active. We would be interested in receiving specimens of large size and would like to hear from others who may have recorded large Plains Garter Snakes.

Two other species of garter snake are found in Saskatchewan. The Wandering Garter Snake (*Thamnophis elegans vagrans*) is a grayish species found in the arid parts of southwestern Saskatchewan and is rather uncommon. The Red-sided Garter Snake (*Thamnophis sirtalis*) is similar to the Plains Garter Snake but has a red rather than a yellow stripe on each side and is found throughout southern and eastern Saskatchewan. A mimeographed check list of the reptiles and amphibians of Saskatchewan may be obtained free of charge upon request to the Extension Division, Sask. Museum of Natural History, Regina.

LETTERS

MY VISIT WITH THE HAMERSTROMS

On July 13, 1960, I left Kindersley and travelled by rail to Plainfield, Wisconsin, on the invitation of Dr. and Mrs. F. N. Hamerstrom, Jr. I arrived at the "camp," as they prefer to call it, late on the evening of July 15 and was hustled off to bed.

I found that the camp is a wonderful place for observing birds. It is an old estate with many trees, some of which have reached a colossal size. One can count as many as fifteen species of birds in song during the early morning.

Both Fran and her husband "Hammy" are invigorating, clever, and thorough ornithologists. They are experts on gallinaceous fowl and are highly interested in birds of prey as a hobby. They are employed by the Wisconsin Conservation Department

to study the Prairie Chicken. In the spring booming season the camp becomes a hotel. Mrs. Hamerstrom had 488 house guests in six weeks during the spring booming season of 1960. These guests assist the Hamerstroms in their research by observing different booming grounds from blinds and recording certain data. Few of us have an opportunity to observe this species doing its courtship dance since it has almost vanished from Saskatchewan.

The majority of my time was spent assisting Mrs. Hamerstrom with her harrier study. We trapped nesting pairs at the nest, banded them and impied colored plumes into the wings and released them. Each pair had its own colors. Through this study Mrs. Hamerstrom has learned much about this species, its mating over several

years, its territory and much about its nesting habits and behaviour. She banded 17 adults and numerous young this season. When I left Kindersley, most of the young Marsh Hawks had flown, but on my arrival at Plainfield I found that they were about one week old and that some eggs had not yet hatched.

A party of eleven of us hawk enthusiasts travelled into northern Wisconsin and banded 16 Osprey during the annual Osprey expedition. These birds were banded at nests which were built on the numerous dead trees which protrude from the water of the flowages of Hydro projects. Of these 16 Osprey, five were adults which we trapped through novel means. This group uses many well developed and ingenious methods of trapping adult hawks which have been derived from ancient falconry methods. We believe that these adults are the first to be trapped at the nest and banded in many, many years.

I also had the privilege of spending a day at the beautiful campus of the University of Wisconsin. I was able to browse through their amazing "re-print library" and chat with Dr. J. J. Hickey and dine with Dr. R. McCabe and family.

I spent many hours with the hawk enthusiasts and assisted with the building of the new "trap shack" at Cedar Grove Ornithological Station. This establishment is situated on the shores of Lake Michigan which acts as a natural barrier. The birds, especially hawks, concentrate here during migration which enables this station to trap large numbers. Although the station's primary interest is hawk research, many thousands of passerine (perching) birds are banded there annually.

I must say that I enjoyed this trip immensely, and I met many wonderful people. As my main interest is raptorial birds this trip taught me much, acquainting me with some of the most active hawk banders in North America, their interest and special research techniques. I feel that I was very fortunate in being able to take this trip. I would like to thank all the wonderful people who made this trip so enjoyable, with a special thank you to the Hamer-

stroms and to my parents who made this trip possible.—**Glen A. Fox**, Kindersley.

CHIMNEY SWIFTS

I would like to report my first sighting of Chimney Swifts (*Chaetura pelagica*) on June 23, 1960. My neighbour installed some Martin houses this year and sparrows were nesting in them until these strange birds appeared and nearly all the sparrows were driven away after a few days of fighting. A bird-loving tourist who visited my neighbour's several weeks later said these birds were Chimney Swifts. The swifts never perched on branches of trees, but used the house and bird house to light on. There were only one or two eggs in the nest and when the young flew out, the parent birds seemed to cement the entrance shut. **The Birds of Alberta** lists the Chimney Swift as a hypothetical species only—I wonder whether any reader has seen them in Alberta or Saskatchewan.—**Helge S. Abrahamson**, Sylvan Lake, Alta.

(EDITOR'S NOTE: The Chimney Swift has been reported breeding at Nipawin (see C. Stuart Houston and Maurice G. Street, 1959, *The birds of the Saskatchewan River*, p. 110). The two nests described by Street were in open fireplace chimneys. Swifts are not known to nest in light places; they choose hollows deep in tree trunks, chimneys, etc. We do not know of any records of swifts nesting in bird houses, so this would be an unusual observation.)

1960 CHRISTMAS CARDS



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The BLUE JAY Bookshelf

A PRELIMINARY ANNOTATED CATALOGUE OF THE MOSS FLORA OF ALBERTA. By C. D. Bird. September 25, 1960. University of Alberta. 13 pages mimeo. Free.

This mimeographed publication is exactly what its title implies, a catalogue on the mosses of Alberta.

Although the author of this paper does not claim to have a complete list of the mosses of Alberta he has done a most remarkable job of winding up the very scattered literature on the subject and he has arranged the material in a systematic order based on the best current thinking on the subject. I have a small collection of Alberta mosses which I matched with the list. I found that all of my material was recorded and that localities agree with my collection records.

A list of mosses of this nature is a very valuable tool to persons doing research in the fields of bryology and ecology. I feel that much more work must be done with these small but beautiful plants if we are to unlock the secrets of the plant world. Mosses are unique in what they tell the discerning student about the habitat of the plant. Every publication of this nature is of value in making known a most interesting group of plants.

This publication is for the serious student, not the general reader. It may be obtained by writing to the author, Botany Department, University of Alberta, Edmonton, Alberta.—**M. A. Welsh, Prince Albert.**

THE ART AND PRACTICE OF HAWKING. By E. B. Mitchell. Charles T. Branford Co., Boston, Mass. First published 1900, reprinted 1959. Price: \$6.00.

This book is essentially a practical treatise on one of the oldest sports in the world—the art of falconry. Experts have called this book a minor classic ever since its appearance in 1900. The object of the author is to describe briefly and yet clearly the fundamentals of this highly exciting field sport, in such a way that the

layman can read the book with ease and learn to master the sport.

The nineteen chapters of this 291-page book deal with every major aspect of the sport. Chapter II, for example, deals with birds used in hawking. Although all the raptors described are European, most of these are relatives of American species: e.g., Peregrine Falcon, Merlin (Pigeon Hawk), Goshawk. In this chapter the author briefly describes the bird, its history and its value in the sport of falconry.

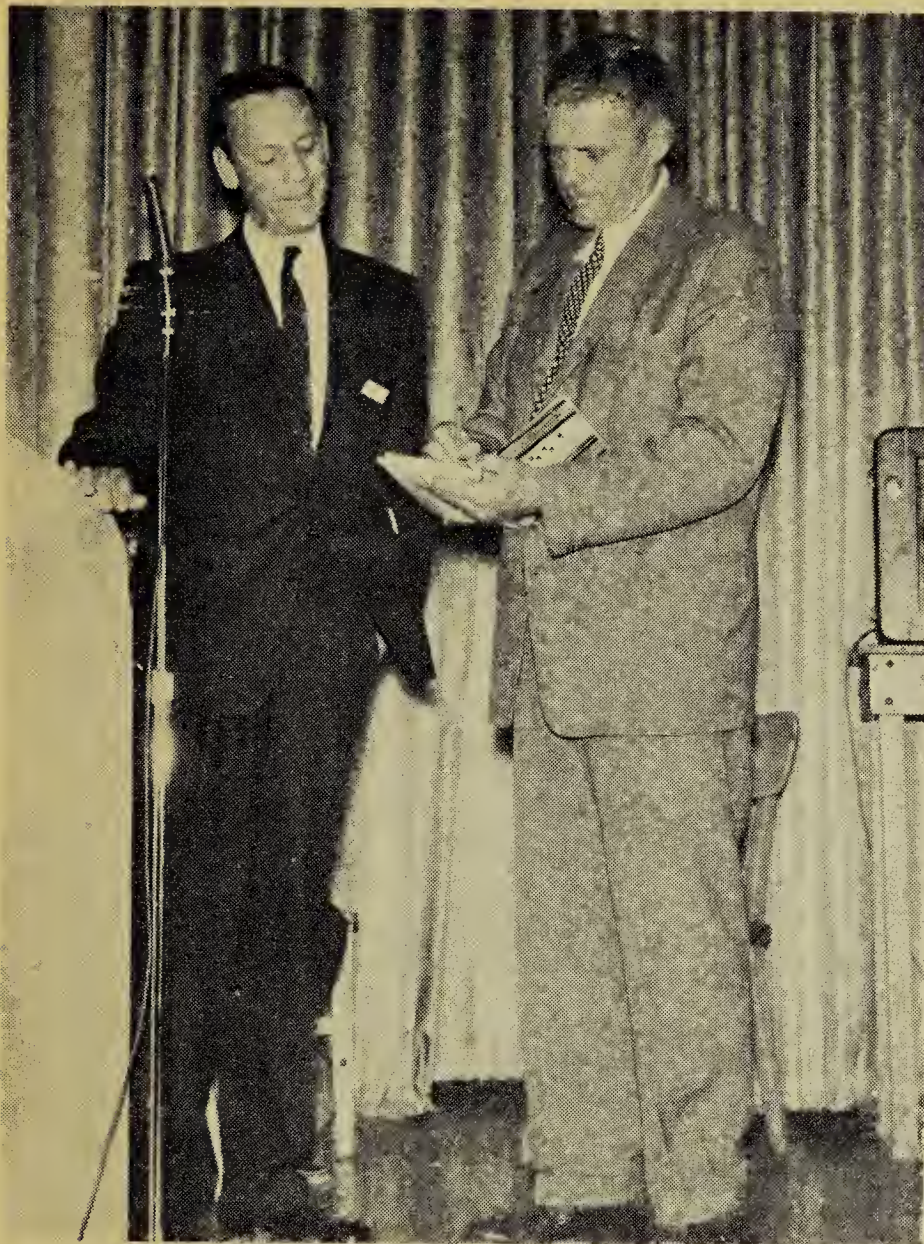
In Chapter III the author describes, with the help of three pages of illustrations, the requirements for keeping a bird and the facilities involved, and tells how to make furniture and equipment.

There are three chapters describing the time and manner of obtaining young hawks, capturing adults, and the various approaches to training and entering these hawks to actual hunting.

Two very worthwhile chapters deal with the short-winged hawks of Europe: the Goshawk and the Sparrow Hawk. Since they differ from the falcons, their training, hunting habits and characteristics are fully described.

One of the most interesting chapters in this book is Chapter XVIII, "Virtue and Vice," in which the author philosophizes on the good and bad hawks, their temper, shape, size, colour, and style of flying. Hawks, he tells us, are also very good judges of character and some of them take real delight in aggravating an imprudent or hasty master!

I not only recommend this book to falconers and those who wish to be falconers but to naturalists as well, and it might well be a useful book in the library of a zoologist. It not only contains information on practical procedures of falconry but abounds with hawk lore of every kind.—**Ralph D. Carson, Sask. Museum of Natural History.**



SMNH Photo

H. A. Hochbaum autographing a copy of his **Canvasback on a Prairie Marsh** at the SNHS Annual Meeting, 1960.

WATERFOWL STUDIES

by H. A. Hochbaum

When we were announcing H. Albert Hochbaum as the guest speaker for the Annual Meeting in the last issue of the **Blue Jay**, we referred to the two prize-winning books for which, as an author, he is best known. Since there is now a second edition of the earlier book, both it and the later book are available for purchase as well as in libraries, so we thought our readers might like to have this information about them:

Canvasback on a Prairie Marsh. Original edition, 1944; second edition, 1959. Wildlife Management Institute.

Travels and Traditions of Waterfowl. 1955. University of Minnesota Press.

(Continued from page 180)

western provinces was noted, and the delegates urged the expansion of university programs in anthropology and the creation of more positions for archaeologists.

Reports of recent fieldwork were also given at the Conference. Thomas F. Kehoe was chairman of the session

devoted to the archaeology of the prairie provinces; Saskatchewan archaeological activities occupied a major portion of this session, with reports on surveys and excavations undertaken this year in southwestern Saskatchewan, the South Saskatchewan River Reservoir, Squaw Rapids Reservoir, northern Saskatchewan, and the Regina and Saskatoon areas.

SNHS SPECIAL PUBLICATIONS

A GUIDE TO SASKATCHEWAN MAMMALS—By W. H. Beck. Special Publication No. 1, Sask. Natural History Society, Regina, 1958. 50 cents.
THE BIRDS OF THE SASKATCHEWAN RIVER, CARLTON TO CUMBERLAND—By C. Stuart Houston and Maurice G. Street. Special Publication No. 2, Saskatchewan Natural History Society, Regina, 1959. \$1.50.

ORDER SPECIAL PUBLICATIONS FROM

Dr. Stuart Houston, 2401 Hanover Ave., Saskatoon, Sask.

CLUB NOTES

WITH THE BIRDERS AT ANN ARBOR

by Margaret Belcher, Regina

Birders who travelled across a continent to the A.O.U. meeting in Regina in the fall of 1959 met again in August this year in Ann Arbor, Michigan. A little delegation of four attended the convention from Saskatchewan, host province to the 1959 gathering. These "birders" were Dr. Bob Nero, Dr. and Mrs. George Ledingham, and myself, and if our enjoyment of the events and hospitality offered on the pleasant University of Michigan campus was typical, the 1960 A.O.U. meeting may be regarded as another happy and successful one.

There were the usual three days of scientific papers, and I have a little notebook full of scribbled notes about the pupil flexion display in the Orange-fronted Parakeet, the comparative ontogeny of behaviour in young Redwinged and Tricolored Blackbirds, the phylogenetic significance of the structural pattern of egg-white proteins and so on. All of this sounds tremendously forbidding, even in retrospect, but there were also less technical subjects and lighter moments. For one thing, an evening programme of motion pictures was arranged and we were treated to that beautiful film which Stuart Keith subsequently brought to Saskatchewan, on the "Cranes of Japan." There was a thought for conservationists in that splendid film which showed in what affection the people of Japan hold their cranes and the provision made for them in Japan's "national monuments."

Blue Jay readers would have been interested in contributions from ornithologists whom they know as contributors to their magazine. A. J. Erskine, who asked a year ago for information from our readers about the Bufflehead gave a paper on nest site tenacity and homing in the Bufflehead. Lawrence H. Walkinshaw had a paper on the Sandhill Crane. R. W. Nero described the nesting of the Arctic Tern on the shores of Lake Athabasca, using kodachromes taken in the north by Fred Lahrman.

In listening to the papers, the thought came to me again as it had

at the meeting in Regina that sometimes the topics which seem most technical and most remote from the amateur's experience actually present the most challenging ideas. Sometimes, too, there is an obvious and vital connection between the ornithologist's discussion of a problem and what we see of it around us. This was true, for example, of Wallace's paper on the Robin dilemma, for no one could help being struck by the scarcity of Robins in Ann Arbor compared with the large numbers that we expect to see in a city.

At Ann Arbor there were no organized "birding" trips, and it was left to individuals or small groups to arrange their own informal excursions. For newcomers to Ann Arbor there were suggestions from the local committee about birding in the University arboretum and botanical gardens. We visited both these pleasant places with their great shade trees, in the upper branches of which migrant warblers were almost lost to view. My curiosity is still piqued, however, by an alternative road to the Edwin S. George Reserve which we did not take, for which the directions in the bulletin were "to continue west on the black-topped road from Hell!"

While I was impressed as a native of the prairies with the prevalence of noisy Blue Jays in the park-like grounds of the University residences, Eastern birders who live in wooded areas were getting up at 4.30 to go out to the Michigan marshes where Sandhill Cranes might be seen. The woman who had seen eight cranes and the man who watched five come down into the marsh were as thrilled with the sight as we are by the thousands of cranes in fall migration at the north end of Last Mountain Lake.

On Saturday, instead of joining the organized field trips, we went to Point Pelee for a day's birding with what turned out to be a party of fellow Canadians—A. J. Erskine, Jim Baillie and Earl Godfrey. With these friendly "experts" we listed over 80 species of birds, some of them quite new to me—Common Gallinule, Caspian Tern, Yellow-billed Cuckoo,

Carolina Wren (heard only, but identified by ear by Jim Baillie and Earl Godfrey), Blue-gray Gnatcatcher, and Blue-winged Warbler. The life-list "firsts" were not necessarily more interesting than the other birds observed. We watched a Wood Duck slide into the reeds and three Ospreys hunting for prey over the canals which irrigated the extensive onion fields; we scanned a great flock of migrant swallows on the telephone wires, to find all six species known in the area—Tree, Bank, Rough-winged, Barn, Cliff, and Purple Martin; and we picked out in the wave of migrant warblers the species that are not common with us, especially the numerous male Black-throated Blues, many of them still in handsome full plumage. In the wave of migrants some birds were so near to us that Jim Baillie, experienced birder with binoculars always at hand, grumbled, "too close to focus!"

Back in Ann Arbor on the Sunday morning that we left for home, I saw my first Green Heron along the marshy edges of the Huron River where on previous evenings we had noted great concentrations of Redgings. George Ledingham came back from an early morning hike among the trees at the river's edge to describe the brilliant Indigo Bunting, a species that I first saw last June at the lookout on Gatineau Mountain above Ottawa. Another species that we enjoyed seeing in abundance was the Red-headed Woodpecker. I had never seen one of these woodpeckers, although our Regina birding group observed one just south of the city this spring. On my first morning in Ann Arbor I was busy checking in Peterson an immature that was feeding on suet in a tree-shaded back lawn when a woman appeared at her back door to tell me that the woodpeckers had come back this year after 20 years' absence. These woodpeckers, many of them with the conspicuous red head, were easy to spot as we drove through Michigan on our way home. On that first day's drive along country roads off the state highways, we were also impressed by the number of Turkey Vultures and the close view we got of them, particularly of two on the ground in a field beside the road.

The following day, as our ferry

boat came into Milwaukee, a small flock of Bonaparte's Gulls was flying over the harbour. The Bonaparte's Gull is a "common transient and local summer visitant along the Great Lakes" (Dale A. Zimmerman and Josselyn Van Tyne, 1959. A distributional check-list of the birds of Michigan), but these gulls were interesting to us because we have them rather rarely in migration in Regina. The most remarkable migration phenomenon noted on our return trip was the Nighthawk flight in Wisconsin on August 30. We first noted Nighthawks overhead in the Wisconsin Dells at 4:30 p.m. and from then until 8:10 p.m. the hawks flew over us continuously in large numbers as we drove along. The following day in Minnesota we watched Redwings migrating, and then on September 2, back in Saskatchewan, we met a steady stream of migrating Franklin's Gulls for ten miles following the C.P.R. between Weyburn and Yellowgrass.

In Minneapolis we spent an hour which was all too brief with Walter J. Breckenridge in the Minnesota Museum of Natural History. This is a small and in some ways unpretentious museum, but the habitat groups which have been worked out thoughtfully over a period of 25 years to represent typical areas in the state, and the unifying touch of Francis Lee Jacques' brush, give you the immediate impression that the museum is an artistic whole.

Driving through North Dakota we were introduced to the extensive wildlife refuges. We stopped briefly at the Snake Creek National Wildlife sanctuary where a captive flock of Canada Geese at the station and seventeen Pronghorn Antelope on the hillsides were attractions. Then at Kenmare where we thought of the Gammells and visited them briefly by telephone as we had done with Mary Lupient in Minneapolis) we had glimpses of great flocks of Pelicans in the Des Lacs Refuge. Mrs. Gammell remarked that bird-watching couldn't help being fascinating at Kenmare with a national refuge on their very doorstep. When the A.O.U. comes to Saskatchewan again we hope that visiting ornithologists will be able to make side-trips to well-established wildlife refuges.

TWELFTH ANNUAL MEETING OF THE SAS

I. The



Early morning mist rises off Wascana Marsh in Regina as a few hardy souls indulge in a pre-conference bird hike. (Why turn your face to the camera when you are still bleary-eyed?)

Sask. Photo Services

Back at the Museum Mrs. Cruickshank and Mrs. Croome open the Blue Jay Book Shop for business and goodwill chatter with Ross Lein from Estevan.

SMNH Photo



Meanwhile members register and buy banquet tickets in anticipation of an eventful day. Seen at registration desk are Sylvia Harrison, Connie Pratt, Dr. R. W. Nero and the Underwood family from Strasbourg.

Sask. Photo Services



SATCHEWAN NATURAL HISTORY SOCIETY

ial Aspects

There were coffee breaks and plenty of informal chatter. Seen here are members from Regina, Saskatoon, Moose Jaw, Naicam, and Bladworth.

SMNH Photo



And then there was the informal banquet in the Museum lounge where members and families gathered to relax over a good meal.

SMNH Photo

Distinguished guest, Honorable A. E. Blakeney, Minister of Education, and his wife, the assistant secretary to the Saskatchewan Natural History Society.

SMNH Photo



Arrangement by JOYCE DEW

II. Reports from S.N.H.S. Annual Meeting

Regina, October 21-22, 1960

by **Margaret Belcher**, Secretary, SNHS

The twelfth annual meeting of the Saskatchewan Natural History Society was held Saturday, October 22, in the Saskatchewan Museum of Natural History. It was preceded by an informal meeting of executive members and directors and others interested in the business of the society on Friday evening and by a coffee party for members arranged by the local Regina Natural History Society.

BUSINESS SESSION

The meeting opened with addresses of welcome by F. G. Bard, Director of the Museum, and Dr. R. W. Nero, President of the Society. The minutes of the last annual meeting had been circulated at the registration desk, and they were approved as circulated.

Reports of Officers

The financial statement printed in this issue constituted the **TREASURER'S** report. Three motions were made during discussion of the report: (1) that the treasurer be paid a bonus honorarium of \$100 because of additional monies handled and additional work entailed; (2) that the Society's appreciation be expressed to past treasurers Connie Pratt and Elmer Fox for their work and interest in the Society; (3) that an honorarium of \$25.00 be paid to Manley Callin for his assistance in auditing the books and advising the Society on book-keeping procedures. A resolution was later brought in to have the Treasurer and Editor or Secretary act as signing officers.

The **BUSINESS MANAGER**, Frank Roy, described himself as "expediter of mails" and the President thanked him and his Saskatoon committee for handling the mailing of the **Blue Jay**.

In his report, the **EDITOR** compared last year's **Blue Jay** of 212 pages with the 192-page previous year's magazine. This did not mean that there had been a larger number of items printed; in fact, there were perhaps fewer contributors. The Editor asked for contributions from

more members, as the **Blue Jay** is the members' magazine. Appreciation was expressed to Joyce Dew for editing the School Section.

In answer to a question from the floor about editorial policy, the Editor outlined three aims of the magazine: to create and stimulate interest in various fields of natural history, to provide a medium for publication of original observations of members, and to influence opinion. The President spoke for the Society in asking that the Editor be allowed a free hand in determining the creative direction of the journal and said he felt that serious examination of back issues of the **Blue Jay** showed that this had always been the policy of the magazine.

The **CORRESPONDING SECRETARY'S** report reviewed resolutions and briefs submitted during the year.

Reports of Committees

BIRDS OF PREY (R. Bremner) disbanded following passing of protective legislation for hawks and owls.

CALENDAR (E. L. Fox)—Possibility of selling 1962 calendar through the Bookshop to be investigated.

CONSERVATION—F. G. Bard reported on the following conservation projects: establishing of a game preserve in the Valeport Marsh where Canada Geese have been "transplanted" this year from Wascana Marsh; posting of the Wascana Marsh with Canadian Wildlife Service signs; erection of martin houses in Regina; field-checks on Whooping Cranes in fall migration.

CONSTITUTION—F. Brazier circulated copies of a tentative revision of the constitution for comment. Extra copies are still available and these will be sent out, upon request, to anyone interested.

MEMBERSHIP—Sylvia Harrison reported that the following had offered to act on the membership committee in answer to her appeal in

the June **Blue Jay**: Gwen Nicholson of Winnipeg, Mrs. Nora Lane of Brandon, Mr. West of Cupar, Mrs. Wright of Kelvington, Mrs. Judy Robin of Aylsham, Claude May of Lodgepole, Alberta, David Chandler of Masefield, Carl Ellis and Jack Zess of Moose Jaw.

Current membership is 2925, distributed as follows: Saskatchewan—1442 (plus 754 schools); Alberta—185; Manitoba—212; British Columbia—82; Ontario—71; Quebec—15; Nova Scotia—4; New Brunswick—2; Yukon—9; United States—98; Abroad—17; Complimentary—34.

PUBLICATIONS — Dr. Stuart Houston reported that publications had been encouraged by receipt of a \$550.00 Conservation grant and of \$300.00 from the SNHS A.O.U. Committee. Publications being considered for the future are an index to the **Blue Jay**, a check-list of Saskatchewan mosses, and check-lists of the birds of the Qu'Appelle Valley and of Regina.

PUBLICITY — Doug Gilroy described publicity carried on through his "Prairie Wildlife" column in the **Western Producer**.

GREETINGS CARDS—Excess of income over expenses on 1959-60 card sales was \$162.29. For 1960, 306 dozen Sharp-tailed Grouse hastenotes and 433 dozen Bohemian Waxwing Christmas cards are on hand.

BOOKSHOP—The **Blue Jay** Shop operated on an experimental basis for 75 afternoons during the summer months, and Mrs Cruickshank reported total cash sales during that period of \$1278.08.

Reports of Local Societies

MOOSE JAW—Present membership is 89, an increase of 19 over last year. Nine regular monthly meetings (second Friday of each month) have been held, with speakers from Moose Jaw, Regina and Saskatoon Natural History Societies; fourteen members took part in the annual Christmas Bird Count; eight field trips and one trip to the Museum were arranged, as well as two joint field trips with the Regina society. Last spring's special project was the erection of bird houses; this year a **Blue Jay** membership drive is planned.—**Mrs. F. Taylor**, Secretary.

SASKATOON — Regular monthly meetings during the past year included a Members' Night, lectures by Dr. Saunders, Dr. Cram, Dr. Miller and D. Thomas. In addition there was a Sharp-tailed Grouse observation outing led by Bob Folker, a photography demonstration by Hans Dommasch, a botany hike with Dr. Coupland, Christmas and May 24 bird censuses, and a picnic and hike this fall at the Pike Lake Provincial Park.—**Frank Roy**.

REGINA—Speakers for the regular monthly meetings (third Monday of each month) have been arranged for the coming year, and a number of workshops are being planned. Emphasis this fall has been on outdoor activities, with three outings in the society's "Hidden Valley" sanctuary and a joint field trip with Moose Jaw. The Audubon Screen Tours are being sponsored for the fourth year. For the first time the RNHS has a printed programme—write for a copy to Miss Joyce Dew, Secretary, Regina Natural History Society, Museum of Natural History, Regina.—**E. L. Fox**, President.

PROGRAMME

The season's activities were reviewed in kodachromes and reports by members at the afternoon session of the meeting. Gordon Staines, Ducks Unlimited, Saskatoon, reported on transplanting Canada Geese from Wascana Marsh to the Valeport Marsh. Ron Mackay, Canadian Wildlife Service, described the current study being made by the service of the Sandhill Crane problem at the end of Last Mountain Lake, including experiments with exploders and aircraft. Fred Lahrman, of the Museum staff, reported on 1960 breeding records of the Trumpeter Swan in the Cypress Hills and showed Whooping Cranes photographed at Aransas Refuge and the San Antonio and New Orleans zoos. Lloyd Carmichael and Mrs. K. Skinner had shots of the summer meet at Greenwater, and Doug Gilroy showed a Greenwater sunset taken a week or so later. Doug also showed pictures taken in his own area, including Black Terns nesting at "Brown's Slough". Ten shots of "birds at home" were shown by Elmer Fox. Birds of prey were featured in Glen Fox's pictures of banding

Ospreys and Marsh Hawks with the Hamerstroms and in Dr. Stuart Houston's owls and eagles. W. Yan-chinski showed flowers, mushrooms and dragonflies, and Doug Wade concluded his series on a variety of nature subjects with pictures of the Regina Society's "Hidden Valley".

The second programme item was a kodachrome series on Uranium City and adjacent Lake Athabasca by Dr. R. W. Nero. Dr. Nero spent three months this summer studying and collecting at Uranium City. The region—mostly northern coniferous forest merging into sub-Arctic—proved interesting in that many characteristic Hudsonian Life Zone

species, such as the Northern Shrike and Fox Sparrow, were lacking. The bird life of the area revealed more affinities with that of the Canadian Life Zone, and also showed Arctic influences, as for example in the presence of the Glaucous Gull (a new species for Saskatchewan) and in the fact that the Surf Scoter was the second commonest duck. In the area 121 species of birds were recorded, mammals, amphibians and plants were collected, and 15 archaeological sites were located and mapped from which 200 specimens were brought back. A series of beautiful kodachromes by F. W. Lahrman was shown in conjunction with Dr. Nero's lecture.

SNHS AWARDS

The Cliff Shaw Memorial Award was given to Ralph Carson (Ralph Ostoforoff) for the series of imaginative sketches of the Boreal Owl in the March, 1960, issue of the **Blue Jay**. This award is given annually in memory of Cliff Shaw to "an item from the past four issues of the **Blue Jay** judged by the executive to merit special recognition as an original contribution in any branch of natural history." The presentation was made by Larry Shaw.

The Conservation Award for 1960 was made to Harry Moody, whose "Northern Gate" Museum at Denare Beach, Sask., reflects a broad interest in archaeology and anthropology and houses Mr. Moody's own collection of archaeological and historical materials. In announcing the award, Alan Turner, archival assistant at the Provincial Archives, spoke of the contributions made in the last 30 years by Mr. Moody in advancing local history—his investigations of old fur trade posts and his study of Indian crafts.



SMNH Photo

Larry Shaw presenting Ralph Carson with the Cliff Shaw award.

RESOLUTIONS

1. **Resolved that** the Canadian Federation of Humane Societies be asked to inquire into the conditions under which wild animals are housed and the care (both summer and winter) being given to these animals, as reports would indicate gross neglect in the housing and care of some wild animals in zoos and private parks in Saskatchewan.
2. **Resolved that** the Saskatchewan Natural History Society, in co-operation with the various local societies, commence a vigorous campaign through the press, radio and television to acquaint the public with the new Saskatchewan laws concerning the protection of birds of prey; also, that a special committee be set up to include a representative from each local society and that the SNHS request the Provincial Travel Bureau to publish an article in a future issue of the publication entitled "Saskatchewan Outdoors" dealing with protection of our birds of prey.
3. **Resolved that** the Saskatchewan Natural History Society request the Department of Natural Resources to include on future maps of Saskatchewan's provincial parks the following information: hiking trails, suggested canoe trips and portages, lakes designated as "out of bounds" to motor craft.
4. **Resolved that** the Saskatchewan Natural History Society urge the Canadian Wildlife Service to study methods of further protecting the rare Ross' Goose in eastern Alberta and western Saskatchewan.
5. Whereas the development of the Broad Street Bridge in Regina has been responsible for earth fill being used along the shores of the Wascana Creek, presumably in preparation for park development there,
Resolved that a committee work with the City Parks and Engineering Departments to forestall destruction of natural habitat in this area.
6. Whereas the development in the Regina Hillsdale area has been responsible for the grading of a road which destroys the former marsh lookout point, **Resolved that** the Saskatchewan Natural History Society urge that this point be recovered for a lookout by the installation of two culverts allowing access to "Bird Point" for observation of waterfowl on the Marsh.
7. **Resolved that** the Saskatchewan Natural History Society express appreciation to the Minister of Natural Resources for the continued assistance given to the Society's activities towards the conservation of our renewable resources, under the Department's Conservation Grants programme. It is our hope that with this assistance the **Blue Jay** may play an increasingly important role in conservation education.

ACKNOWLEDGMENTS

The SNHS acknowledges with thanks the assistance given by the RNHS and the SMNH in arranging the annual meeting in Regina. Appreciation is expressed to the RNHS for giving the Friday evening coffee party, and to Mr. Bard and his staff at the Museum for the warm welcome extended to members, for the detailed and imaginative arrangements made for us, and for their generous participation in the afternoon's programme.

LIST OF PERSONS REGISTERED

R. Stueck of ABERNETHY; Mr. and Mrs. L. Beckie of BLADWORTH; George Chopping of DUBUC; Ross Lein of ESTEVAN; Mr. and Mrs. M. Callin of FORT SAN; Mrs. Betty Hubbard of GRENFELL; Rose Dutton

of GULL LAKE; J. Provick of HAZELCLIFFE; R. Elmore of HANLEY; Mrs. H. Newton, Betty Watson, Mr. and Mrs. K. Skinner, Joan and Kathleen of INDIAN HEAD; N. Meakin of KELVINGTON; Glen Fox of KINDERSLEY; Mrs. H. Bray of McLEAN; Mrs. Jean West, Mrs. Rosalind Taylor, Michael Rhodes, W. Riome, C. Ellis, Dr. and Mrs. Ewart and family, Mrs. Nancy Dunn, Mrs. Vesta Humphreys, Mrs. K. Rankin, John Horton, Gordon Morley, Mr. and Mrs. F. Hill, Mollie Ritchie, Freda Walker, E. Watterson, Jean McDowall of MOOSE JAW; W. Yanchinski of NAICAM; Mrs. Keith Paton of OXBOW; Mrs. H. A. Croome, Mr. and Mrs. F. Robinson, Dr. and Mrs. G. Ledingham, E. L. Fox, Mr. and Mrs. L. McK. Robinson, F. G. Bard, Connie Pratt, Ron Austin, Elizabeth Cruickshank, R. W. Nero, Joyce Dew, Margaret Belcher, Mr. and Mrs. D. Gilroy, Mr. and Mrs. F. Brazier, Sylvia Harrison, T. Gentles, Marguerite Robertson, L. Carmichael, Mrs. Gertrude Agnew, Lucy Murray, Mr. and Mrs. R. Harrison, F. Lahrman, R. H. Davis, Ricky Sanderson, F. Switzer, Mr. and Mrs. J. Hodges, Mr. and Mrs. D. Wade and Alan, Mrs. M. McEachern, G.

Dodd, Muriel Stevenson, Mrs. L. N. Ray, Isabel Coleman, Connie York, A. Foster, Mrs. Anne Blakeney, Mr. and Mrs. Bruce Knox, Gail Irving, Edna Colbeck of REGINA; W. A. Brownlee of ROSE VALLEY; Bill Richards, Dr. and Mrs. S. Houston, J. F. Roy, W. H.

Beck, R. M. Bremner, G. Staines of SASKATOON; Mr. and Mrs. H. Underwood, Ralph and Kenneth of STRASBOURG; D. Hayward of WOLSELEY; L. Wojciechowski of LAC DU BONNET, MANITOBA; R. H. Mackay of EDMONTON.

FINANCIAL STATEMENT 1960 SASKATCHEWAN NATURAL HISTORY SOCIETY

INCOME

Memberships (including sales of Blue Jay)	\$ 4,119.18
Guide to Saskatchewan Mammals	87.00
Birds of the Sask. River (including \$300 from A.O.U)	584.41
Christmas Cards and Hasti-notes	380.90
Calendars	195.12
Blue Jay Shop (\$1,279.98 less \$100.50 to above accounts)	1,179.48
Sask. Dept. of Natural Resources Grant (1959)	1,100.00
Sask. Dept. of Natural Resources Grant (1960)	1,000.00
Annual Meeting, October, 1959	71.41
Summer Meeting, June, 1960	72.82
Donations	46.00
Bank interest and interest on bonds	20.05
Adjustment of bonds to par value	41.25
Advertising	105.00
	\$ 9,002.62

EXPENSES:

Printing of Blue Jay (5 issues)	4,459.75
Birds of the Sask. River	1,100.00
Christmas Cards and Hasti-Notes	253.11
Blue Jay Shop	701.52
Honoraria	462.38
Postage and stamped envelopes	206.89
Bank exchange and discounts	33.02
Office supplies and stationery	78.76
Advertising	267.50
Miscellaneous	43.50
	\$ 7,606.43

Excess of Income over Expenses **\$ 1,396.19**

COMPARATIVE STATEMENT OF NET WORTH

October 1, 1960

Current Account	\$ 685.60
Savings Account	1,680.31
Bonds	300.00
	\$ 2,665.91

October 1, 1959

Current Account	350.71
Savings Account	660.26
Bonds	258.75
	\$ 1,269.72

INCREASE IN NET WORTH **\$ 1,396.19**

SUSTAINING MEMBERS 1960 (who contributed \$5.00 or more)

Margaret Belcher, Regina; Nick C. Pookkay, Eaglesham, Alta.; Glenbow Foundation, Calgary; A. H. Adamson, Hinchcliffe; E. E. Symons, Rocanville; Saskatchewan Department of Natural Resources (Conservation grant).

THE SASKATCHEWAN NATURAL HISTORY SOCIETY

OFFICERS (October 1960 to October 1961)

Honorary President	Dr. W. P. Thompson, Saskatoon
Past President	Manley Callin, Fort San
President	Robert W. Nero, Sask. Museum of Nat. Hist.
First Vice-President	Ronald Bremner, 402 Canada Bldg., Saskatoon
Second Vice-President	Elmer L. Fox, 3455 Rae Street, Regina
Business Manager	Frank Roy, 120 Maple Street, Saskatoon
Treasurer	Grace Steele, 3603 Caen Avenue, Regina
Editor	George F. Ledingham, 2335 Athol St., Regina
Secretary	Margaret Belcher, Regina College, Regina
Assistant Secretary	Anne Blakeney, 3135 Montague Street, Regina

DIRECTORS

Three-year term: Harvey Beck, Saskatoon; Glen Fox, Kindersley; Mrs. Keith Paton, Oxbow; Spencer Sealey, North Battleford; Mrs. F. Taylor, Moose Jaw.

Two-year term: Keith Baker, Saskatoon; Keith Best, Swift Current; William Brownlee, Rose Valley; Robert Folker, Saskatoon; Thomas Harper, Regina.

One-year term: Joyce Dew, Regina; Mrs. Betty Gerrard, Saskatoon; S. A. Mann, Skull Creek; Mrs. Marion Nixon, Wauchope; Maurice Street, Nipawin.

PRESIDENTS OF LOCAL BRANCHES

Elmer Fox, Regina; Phil Pawluck, Yorkton; E. W. Brooman, Prince Albert; Robert Folker, Saskatoon; Frank Hill, Moose Jaw; J. M. Brooks, Meath Park.

CHAIRMEN OF COMMITTEES

Bookshop: Mrs. Elizabeth Cruickshank, 2329 Athol St., Regina; Calendar: Elmer L. Fox, 3455 Rae St., Regina; Conservation: F. G. Bard, 633 Broadway Ave., Regina; Constitution: Frank Brazier, 2657 Cameron St., Regina; Greetings Cards: Mrs. Muriel Walker, 852 Valley View Drive, Moose Jaw; Membership: Sylvia Harrison, 6 Claire Apts., Regina; Publicity: Doug Wade, 1351 Jubilee St., Regina.

NOTICE TO MEMBERS

This is the time of year for renewing SNHS memberships. What does your membership in the Society give you? Read this issue of the **Blue Jay** carefully to see how many projects the SNHS has been involved in during the past year. For \$2.00 you become a member of an **active** society, as well as a reader of the **Blue Jay**.

At the annual meeting, every member was urged to get a new member. Will you keep this in mind when you renew your membership? Each new member will receive the December, 1960, issue as well as all four issues for 1961.

MEMBERSHIPS

All persons interested in any aspect of nature are invited to join the Saskatchewan Natural History Society. Membership dues per calendar year are: Regular, \$2.00; Junior (including schools), \$1.00. The **Blue Jay** is sent without charge to all members not in arrears for dues. Send your membership to the treasurer, Mrs. Grace Steele, 3603 Caen Ave., Regina, Sask.

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Saskatchewan Museum of Natural History

SMNH Photo

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